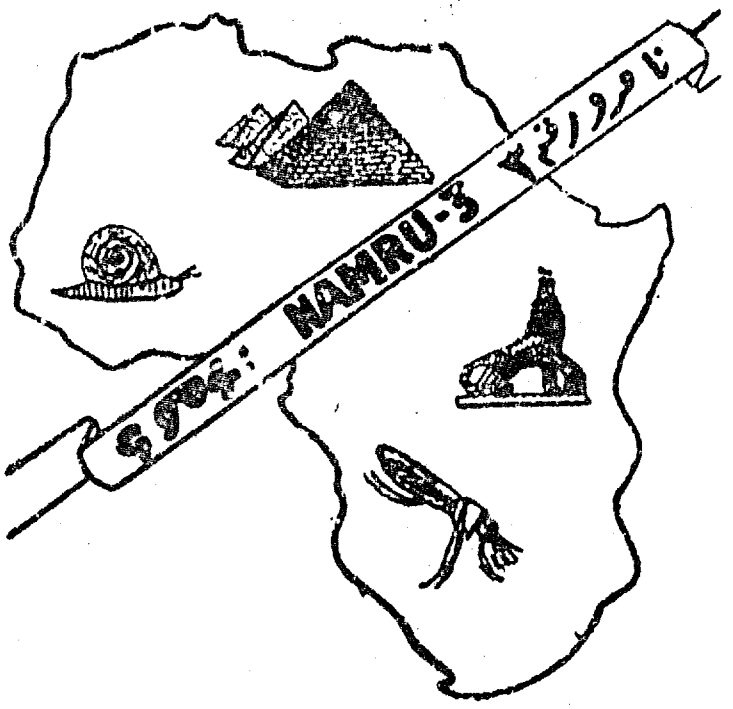

TECHNICAL REPORT

32-69

Checklist of the Reptiles and Amphibians of Egypt

By

Hymen Marx

U. S. NAVAL MEDICAL RESEARCH UNIT No.3
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FPO NEW YORK 09527

96

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INTRODUCTION

This checklist is based primarily on extensive collections made by the United States Naval Medical Research Unit No. 3 (NAMRU-3) in Egypt. Forms here listed are those that are known or expected to occur in Egypt (including Sinai), and those that have been reported from Egypt without further verification. The systematic lists contain original citations, references to major faunal works, and the most recent reviews of each particular group. NAMRU-3 collecting localities are given for each species. From the 3,424 specimens obtained, adequate distributional data are now available for most forms in Egypt. Maps showing collecting localities for each species are also presented for use in future sympatric and ecolgical studies.

NAMRU-3 collections in the Field Museum of Natural History, represent 72 reptile and amphibian species, a phenomenal 77.4% of Egypt's known total herpetological fauna. Ten forms have been added to the Egyptian herpetofauna through the efforts of the NAMRU-3 Medical Zoology team: Pristrurus flavipunctatus, Ophisops elbaensis, Philochortus intermedius, Leptotyphlops macrorhynchus, Coluber sinai, Psammophis schokari aegyptius, Telescopus hoogstraali, Atractaspis engaddensis, Bufo dodsoni, Rana ridibunda. Four new species, O. elbaensis, C. sinai, P. s. aegyptius, and T. hoogstraali, were described from these collections.

The reported herpetofauna of Egypt consists of 93 species in 52 genera. Of the 93 species, three questionably occur in Egypt (Alsophylax blanfordi, Gymnodactylus kotschyi, and Dermochelys coriacea) and two (Scincopus fasciatus and Coluber elegantissimus) have not been reported from Egypt, but almost certainly occur there. Four species are known only from Egypt (Uromastix ornatus, Ophisops elbaensis, Coluber sinai, Telescopus hoogstraali) but they may occur elsewhere.

This collection consists of 3,424 reptiles and amphibians. The ten most common species (108-325 specimens each) are the following eight species of lizards and two of frogs: Acanthodactylus boskianus (9.5% of collection), Chalcides ocellatus (7.6%), Bufo regularis (6.1%), Agama stellio (5.3%), Bufo viridis (5.1%), Tarentola mauritanica (4.7%), Agama mutabilis (3.9%), Eumeces schneideri (3.2%), Acanthodactylus pardalis (3.2%), and Eremias guttulata (3.2%). The eight most abundant species of snakes in this collection (48 to 88 specimens each) are Psammophis schokari (2.6%), Malpolon monspessulanus (2.5%), Psammophis sibilans (2.4%), Spalerosophis diadema (1.8%), Leptotphylops cairi (1.8%), Cerastes cerastes (1.5%), Coluber florulentus (1.5%), and Cerastes vipera (1.4%).

Note that of the eight most common species of snakes collected, two are vipers, three are rear-fanged snakes and none are cobras. Vipers and cobras (nine species) comprised 4.6% (158 specimens) of this collection. The two Cerastes species account for most of the collected specimens of front-fanged snakes (101 specimens).

The Egyptian herpetological fauna at the species level is primarily composed of lizards and snakes (Order Squamata-86.1%). Lizards are the most common both in numbers of species and collected specimens (Table 1). Geckos, lacertid and agamid lizards, skinks, colubrid snakes, and bufonid toads are by far the major faunal elements. Though the colubrid snakes have the greatest species diversity (21.5%), lacertid lizards comprise the family with most collected individuals. Skinks are also noteworthy; though they comprise only 8.6% of the Egyptian species, they comprised 16.3% of the collected specimens.

Six species of turtles form a small part of the Egyptian herpetofauna.

Acanthodactylus is the most evident reptilian genus in Egypt. This genus of four species occurring in Egypt contains the most specimens (15.3% of collection). Agama (11.1%), Chalcides (9.3%), and Tarentola (7.2%) were also well represented in this collection.

FAMILIES	GENERA (52)		SPECIES (93)		SPECIMENS COLLECTED (3,424)		FAMILIES	
	NO.	%	NO.	%	NO.	%	NO.	%
Lizards								
Gekkonidae	8	15.4	14	15.1	458	13.4		
Lacertidae	5	9.6	12	12.9	692	20.2		
Agamidae	2	3.8	9	9.7	409	11.9		
Scincidae	6	11.5	8	8.6	557	16.3		
Varanidae	1	1.9	2	2.2	24	0.7		
Chamaeleonidae	1	1.9	1	1.1	63	1.8		
Snakes								
Colubridae	11	21.2	20	21.5	474	13.8		
Viperidae	4	7.7	6	6.5	131	3.8		
Elapidae	2	3.8	3	3.2	26	0.8		
Leptotyphlopidae	1	1.9	2	2.2	61	1.8		
Boidae	1	1.9	2	2.2	35	1.0		
Typhlopidae	1	1.9	1	1.1	0	—		
Frogs								
Bufonidae	1	1.9	4	4.3	389	11.4		
Ranidae	1	1.9	2	2.2	88	2.6		
Turtles								
Chelonidae	3	5.8	3	3.3	4	0.1		
Testudinidae	1	1.9	1	1.1	13	0.4		
Dermochelyidae	1	1.9	1	1.1	0	—		
Trionychidae	1	1.9	1	1.1	0	—		
Crocodiles								
Crocodylidae	1	1.9	1	1.1	0	—		
Orders and Suborders								
Lizards	23	44.2	46	49.5	2203	64.3	6	31.6
Snakes	20	38.5	34	35.6	727	21.2	6	31.6
Frogs	2	3.8	6	6.5	477	13.9	2	10.5
Turtles	6	11.5	6	6.5	17	0.5	4	21.1
Crocodile	1	1.9	1	1.1	0	—	1	5.3

Table 1. Composition of the herpetological fauna of Egypt.

ZOOGEOGRAPHY

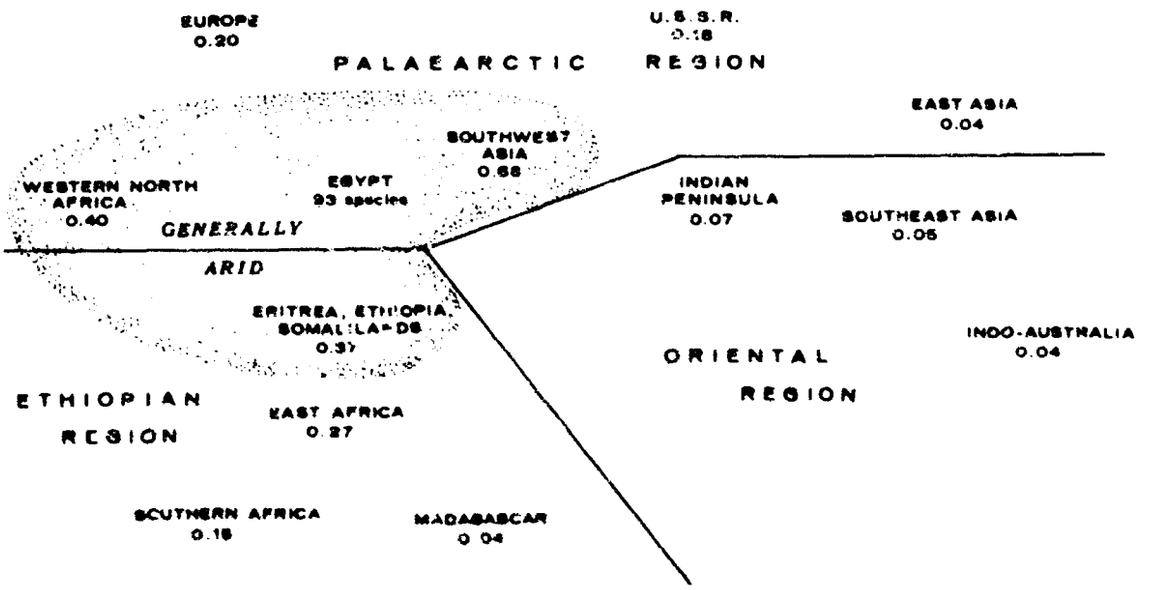

FIGURE 1. Proportion of Egyptian herpetological species occurring in other parts of the Old World. Stippling covers generally arid area.

LOCATION	SPECIES		GENERA		MARINE
	NO.	%	NO.	%	SPECIES NO.
Madagascar	4	4.3	11	21.2	2
Southern Africa	14	15.1	17	32.7	4
Eastern Africa	25	26.9	30	57.7	4
Somalilands, Ethiopia, Eritrea	34	36.6	31	59.6	2
Western North Africa	37	39.8	35	67.3	2
Southwest Asia	63	67.7	46	88.5	4
Europe	19	20.4	27	51.9	4
U.S.S.R.	17	18.3	26	50.0	2
East Asia	4	4.3	21	40.4	4
Indian Peninsula	6	6.5	24	46.2	4
Southeast Asia	5	5.4	19	36.5	4
Indo-Australia	4	4.3	14	26.9	4
Egypt	93		52		4

Table 2. Number and percentage of Egyptian herpetofauna occurring in other parts of the Old World.

The percentage of the Egyptian fauna shared with other parts of the Old World are shown in Figure 1 and Table 2. The majority of the fauna is represented in southwestern Asia, northern Africa, and arid regions of northeastern Ethiopian Region. The Egyptian herpetofauna is primarily composed of species with Palaearctic distribution but 37% of its species also occur in the adjacent Ethiopian Faunal Region. The same pattern is true for the distribution of genera.

There is practically no relationship between this arid Palaearctic terrestrial fauna and the generally tropical terrestrial fauna of the Oriental Region. Only three terrestrial species are shared by both areas, Spalerosophis diadema reaching west-central India, Echis carinatus in peninsular India, and Hemidactylus flaviviridis in southeast Asia. The other forms common to both Egypt and the Oriental Region are the marine turtles, reflecting the aquatic dispersal of this group.

The distributional data from which Figure 1 and Table 2 were prepared are from the following texts:

Madagascar - Angel, 1942; Guibe, 1958.
Southern Africa - Fitzsimons, 1943, 1962; Loveridge and Williams, 1957.
East Africa - Loveridge, 1957.
Somaliland and Ethiopia (including Eritrea) - Loveridge and Williams, 1957; Parker, 1942, 1949.
Northwestern Africa - Domergue, 1959; Loveridge and Williams, 1957; Pasteur and Bons, 1960.
Southwestern Asia - Anderson, 1963; Haas, 1951; Khalaf, 1959; Leviton, 1959; Minton, 1962; Schmidt, 1939.
Europe - Mertens and Wermuth, 1960.
U.S.S.R. - Terentjev and Chernov, 1949.
Eastern Asia - Liu, 1950; Maki, 1931; Obst, 1963; Pope, 1935; Shannon, 1956; Stejneger, 1907; Wang and Wang, 1961.
Indian Peninsula - Smith, 1931, 1935, 1943.
Southeastern Asia - Bourret, 1936; Smith, 1930, 1931, 1935, 1943; Tweedie, 1953.
Indo-Australia - de Rooij, 1915, 1917.

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I particularly wish to thank Dr. Harry Hoogstraal and Medical Zoology Department personnel of NAMRU-3 whose interest and perseverence resulted in this useful, massive collection. I also wish to thank Doris M. Cochran and James A. Peters (USNM), Ernest E. Williams (MCZ), Alice G. C. Grandison (BMNH), Georg Haas (HU), and H. Mendelssohn (TAU) for the loan of comparative material. Thanks are also extended to Miss Bessie L. Williams, who helped labor over this material.

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SPECIES LIST

Key to the Orders and Suborders of Reptiles and Amphibians

1. Limbs present 2
   Limbs absent . . . . . snakes (p. 25)

2. Tail present 3
   Tail absent . . . . . frogs (p. 45)

3. Body encased in a dorsal and ventral shell; no teeth . . . . turtles (p. 43)
   Body not encased in shell; teeth present 4

4. Teeth exposed with mouth closed . . . . . crocodile (p. 43)
   Teeth not visible with mouth closed . . . . . lizards (p. 4)

REPTILIA

Order SQUAMATA

Suborder SAURIA

Key to the Families of Lizards

1. Digits in opposable bundles, tail prehensile; body compressed . . . . . Chamaeleontidae (p. 25)
   Digits not in opposable bundles; tail not prehensile; body round or depressed 2

2. Head covered with large shields 3
   Head covered with small scales 4

3. Belly scales distinctly different from dorsal scales . . Lacertidae (p. 13)
   Belly scales same as dorsal scales . . . . . Scincidae (p. 22)

4. No movable lower eyelids, i.e. "snake eyed" . . . . . Gekkonidae (p. 4)
   Lower eyelids present and movable 5

5. Nostril very close to end of snout . . . . . Agamidae (p. 10)
   Nostril close to eye or midway between eye and end of snout . . . . . Varanidae (p. 21)

GEKKONIDAE

Key to the Species of Gekkonidae

1. Fingers and toes cylindrical, not expanded distally 2
   Fingers and toes expanded, with enlarged ventral lamellae 10

2. Dorsal scales uniform 3
   Dorsal scales not uniform 8

3. Dorsal scales overlapping (Tropiocolotes) 4
   Dorsal scales granular 6

4. Ventral scales strongly keeled . . . . Tropiocolotes t. tripolitanus (p. 9)
   Ventral scales smooth 5

5. Adpressed hindlimbs reach beyond shoulder . . Tropiocolotes nattereri (p. 9)
Adpressed hindlimbs do not reach shoulder . . Tropiocolotes steudneri (p. 9)

6. Fingers compressed . . . . . Pristurus flavipunctatus (p. 7)
Fingers cylindrical or depressed (Stenodactylus) 7

7. Tail abruptly constricted posterior to basal swelling (Fig. 2 - left) . . . . . Stenodactylus petrii (p. 7)
Tail without abrupt constriction posterior to basal swelling (Fig. 2 - right) . . Stenodactylus s. sthenodactylus (p. 8)

8. Lower jaw with a single row of enlarged scales near the chin . . . . . Alsophylax blanfordi (p. 6)
Lower jaw with two rows of enlarged scales near the chin (Gymnodactylus) 9

9. Dorsal tubercles large, separated from each other by 1-2 scales . . . . . Gymnodactylus scaber (p. 6)
Dorsal tubercles small, separated from each other by 3-4 scales . . . . . Gymnodactylus kotschyi (p. 6)

10. Underside of digits without a longitudinal groove, lamellae in a single row (Tarentola) 11
Underside of digits with a longitudinal groove, lamellae in two rows 12

11. Middorsal and lateral tubercles equally raised . . . . . Tarentola m. mauritanica (p. 9)
Middorsal tubercles lower than lateral tubercles . . . . . Tarentola a. annularis (p. 8)

12. Digits proximally slender . . . . . Ptychodactylus h. hasselquistii (p. 7)
Digits proximally expanded (Hemidactylus) 13

13. Back with uniform granules . . . . . Hemidactylus flaviviridis (p. 6)
Back with longitudinal rows of keeled tubercles among granules . . . . . Hemidactylus t. turcicus (p. 6)

Figure 2. Base of tail of Stenodactylus petrii (left - FMNH 152870) and S. sthenodactylus (right - FMNH 66402).

Alsophylax blanfordi (Strauch)

Bunopus blanfordi Strauch, 1887, Mem. Acad. Imp. Sci. St. Petersbourg, (7); 35: p. 61—Egypt; Anderson, 1898, Zool. Egypt, 1: p. 50, fig. 4.

Alsophylax blanfordi, Loveridge, 1947, Bull. Mus. Comp. Zool., 98: p. 58.

Range--Arabia; ?Egypt
Flower (1933) and Loveridge (1947) doubt the occurrence of this species in Egypt. None from Egypt were examined during the present study.

Gymnodactylus kotschyi Steindachner

Gymnodactylus kotschyi Steindachner, 1870, Sitz. Akad. Wiss. Wien, 62: p. 329—"Gorce, Senegal" (error fide Loveridge, 1947), (restricted to Syros Island, Cyclades by Mertens and Mueller, 1928); Boulenger, 1885, Cat. Liz. Brit. Mus., 1: p. 29; Loveridge, 1947, Bull. Mus. Comp. Zool., 98: p. 65.

Range--Europe and western Asia.
Loveridge (1947) believes that the records of this species in Africa (Senegal and Egypt) are introductions or errors.

Gymnodactylus scaber (Heyden)

Stenodactylus scaber Heyden, 1827, in Rüppell, Atlas Reise Afrika, 1, Rept., p. 15—vicinity of Tor, Sinai and the Abyssinian Coast.

Gymnodactylus scaber, Duméril and Bibron (part), 1836, Erp. Gen., 3: p. 421; Boulenger, 1885, Cat. Liz. Brit. Mus., 1: p. 64; Anderson, 1898, Zool. Egypt, 1: p. 54; pl. 5, fig. 1; Flower, 1933, Proc. Zool. Soc. London, 1933: p. 763; Loveridge, 1947, Bull. Mus. Comp. Zool., 98: p. 64.

Common name--Rough-skinned Gecko; Rough scaled Gecko; Keeled Rock Gecko.

Range--Northwestern India eastward to Egypt and south to the Sudan (?Eritrea).

Hemidactylus flaviviridis Rüppell

Hemidactylus flaviviridis Rüppell, 1835, Neuer Wirbelth. Fauna Abyss. Amphib., p. 18—Massaua Island, Eritrea; Anderson, 1898, Zool. Egypt, 1: p. 77, pl. 5, fig. 5; Flower, 1933, Proc. Zool. Soc. London, 1933: p. 766; Loveridge, 1947, Bull. Mus. Comp. Zool., 98: p. 157.

Hemidactylus coctaei Duméril and Bibron, Boulenger, 1885. Cat. Liz. Brit. Mus., 1: p. 137.

Common Name--Cocteau's Gecko; Yellow-bellied House Gecko.

Range--Coasts of the Red Sea to northern India.

Hemidactylus turcicus turcicus (Linnaeus)

Lacerta turcica Linnaeus, 1758, Syst. Nat., ed. 10, 1: p. 202—Oriente.

Hemidactylus turcicus, Boulenger, 1885, Cat. Liz. Brit. Mus., 1: p. 126; Anderson, 1898, Zool. Egypt, 1: p. 80, pl. 5, fig. 3; Flower, 1933, Proc. Zool. Soc. London, 1933: p. 765.

Hemidactylus turcicus turcicus, Loveridge, 1941, Copeia, 1941: p. 247; 1947, Bull. Mus. Comp. Zool., 98: p. 142.

Common name--Turkish Gecko; Warty Gecko; Mediterranean Gecko.

Range--Northern Africa. Introduced elsewhere in Asia, Europe and New World (Loveridge, 1947: p. 147).

Specimens collected--18. Map 1
ISMAILIA: El Ballah (4).
SUEZ: Cairo-Suez road, 65 km E of Cairo (1).
KAFR EL SHEIK: Baltim (1).
BEHEIRA: Hafs (1).
QALUBIYA: Delta Barrage (1).
CAIRO: Abbassia (2).
GIZA: Geziret Muhammed (1); Abu Rawash (3).
ASYUT: Asyut (1).
MATRUH: Burg el Arab (1); Ras el Hekma (1); Mersa Matruh (1).

Pristurus flavipunctatus Rüppell

Pristurus flavipunctatus Rüppell, 1835, Neue Wirbelthiere Fauna Abyss., Amph., p. 17—Massaua, Eritrea; Boulenger, 1885, Cat. Liz. Brit. Mus., 1: p. 52; Anderson, 1898, Zool. Egypt, 1: p. 56, pl. 4, fig. 10; Loveridge, 1947, Bull. Mus. Comp. Zool., 98: p. 77; Schmidt and Mar 1957, Bull. Zool. Soc. Egypt, no. 13: p. 17.

Range--Arabia, extreme southeastern Egypt southward to Somalia.

Specimens collected--2. Map 1.
SOUTHEASTERN DESERT: Gebel Elba, Wadi Kansisrob (1); Wadi Aideib, 2 mi. N of Bir Kansisrob (1).

Ptychodactylus hasselquisti hasselquisti (Donndorff)

Lacerta hasselquisti Donndorff, 1798, Zool. Beitr., Leipzig, 3: p. 123—Cairo, Egypt.

Ptychodactylus lobatus Geoffroy, Boulenger, 1885, Cat. Liz. Brit. Mus., 1: p. 110.

Ptychodactylus hasselquisti, Anderson, 1898, Zool. Egypt, 1: p. 62; Flower, 1933, Proc. Zool. Soc. London, 1933: p. 763.

Ptychodactylus hasselquisti hasselquisti, Schmidt, 1939, Field Mus. Nat. Hist., Zool. Ser., 24: p. 56; Loveridge, 1947, Bull. Mus. Comp. Zool., 98: p. 275.

Common name--Fan-footed Gecko.

Range--Southwest Asia eastward to French West Africa and the Algerian Sahara.

Specimens collected--78. Map 2
SINAI: St. Catherine's Monastery area (+ 5000 ft. alt.): Monastery area (13); Raba (1), Wadi el Sheikh (4), Wadi el Arbaeen (1). Feiran Oasis (+ 1500 ft. alt.) (2).
SUEZ: Wadi Iseili tributary 24 km E of Kutamiya Observatory (1); Kutamiya (1); Wadi Gindali (1); Cairo-Suez road, near halfway mark (2); Wadi Qiseib (1).
RED SEA: Wadi Atalla (1).
SOUTHEASTERN DESERT: Gebel Elba, Bir Kansisrob (9).
CAIRO: Citadel (1); Wadi Garawi, 16 km SE of Helwan (1).
GIZA: Abu Sir (1); Giza pyramids (10); Abu Rawash (22).
ASWAN: Wadi Murra, Bir Murra (4).
MATRUH: Wadi Natroun (1); El Amiriya (1).

Stenodactylus petrii Anderson Figure 2 - left

Stenodactylus petrii Anderson, 1896, Contrib. Herpet. Arabia, p. 96—Tel El Amarna, Assuit Province, Egypt; 1898, Zool. Egypt, 1: p. 45, pl. 4, fig. 7; Flower, 1933, Proc. Zool. Soc. London, 1933: p. 760; Loveridge, 1947, Bull. Mus. Comp. Zool., 98: p. 41.

Common name--Petrie's Gecko.

Range--Israel, Sinai, Egypt westward to west Algeria; (?Sudan).

Specimens collected--2. Map 3
GIZA: Manshiyet Radwan (1).
MATRUH: El Maghra Oasis (1).

Stenodactylus sthenodactylus sthenodactylus (Lichtenstein) Figure 2 - right

Ascalabotes sthenodactylus Lichtenstein, 1823, Verz. Doubl. Mus. Zool. Berlin, p. 102—Egypt and Nubia.

Stenodactylus elegans Fitzinger, Anderson, 1898, Zool. Egypt, 1: p. 42, pl. 4, fig. 1-6.

Stenodactylus guttatus Cuvier, Boulenger, 1885, Cat. Liz. Brit. Mus., 1: p. 17.

Stenodactylus sthenodactylus, Flower, 1925, Proc. Zool. Soc. London, 1925, p. 939; 1933, ibid., 1933: p. 760.

Stenodactylus sthenodactylus sthenodactylus, Loveridge, 1936, Field Mus. Nat. Hist., Zool. Ser., 22: p. 48; 1947, Bull. Mus. Comp. Zool., 98: p. 44.

Common name--Elegant Gecko; Spotted Gecko.

Range--Tunisia east to Egypt; and south to Lake Rudolf; Southwest Asia.

Specimens collected--69. Map 3.
SINAI: El Quseima (1-USNM).
SUEZ: Kutamiya Observatory road (1); Cairo-Suez road, 28.8 km E of of Cairo (1).
SHARQIYA: El Abbassa (1).
GIZA: Abu Rawash (12); Abu Rawash, 1.5 km W of (3).
FAIYUM: Kom O Shim (6); Kafr Mahfuz (1).
MINYA: Gebel el Teir (4).
QENA: Luxor (1).
ASWAN: Aswan, 1.6 km SE of (1); Allaqi, 11.2 km S of (1).
MATRUH: Wadi Natroun (9); El Amiriya (4+2 USNM); Abu Mena (1); Burg el Arab (8+1 USNM); El Afritat, (1); El Hauwariya (1); El Alamein (2); Mersa Matruh (2+2 USNM); Sidi Barrani, 56 km W of (1); Siwa Oasis (2).

Tarentola annularis annularis (Geoffroy)

Gecko annularis Geoffroy, 1823, in Savigny, Descr. Egypte, 1: p. 130—Egypt.

Tarentola annularis, Boulenger, 1885, Cat. Liz. Brit. Mus., 1: p. 197; Anderson, 1898, Zool. Egypt, 1: p. 89, pl. 8, fig. 3; Flower, 1933, Proc. Zool. Soc. London, 1933: p. 767.

Tarentola annularis annularis, Loveridge, 1947, Bull. Mus. Comp. Zool., 98: p. 323.

Common name--Egyptian Gecko; White-spotted Gecko.

Range--Libya through Sinai to Arabia, south to Eritrea, Ethiopia and Somaliland.

Specimens collected--87. Map 4.
RED SEA: Bir Abraq (3).
SOUTHEASTERN DESERT: Wadi Aideib, 3.2 km N of Bir Kansisrob (4); Gebel Elba, Bir Kansisrob (12).
CAIRO: Cairo (1); Abbassia (11); Maadi (1).
GIZA: Giza Pyramids (2); Abu Rawash (3).
FAIYUM: Temple of Gebel Katrani (2); Gezeiret el Qarn (20); Kom O Shim (8); Bait el Asfar (1); Shooting Club (3); Fanus (2).

ASYUT: Durunka (1).
QENA: Luxor (2).
ASWAN: Wadi el Ghadir (1).
MATRUH: Wadi Natroun, El Hamra (2); Bahig: 112 km S of (5), 160 km S of (3).

Tarentola mauritanica mauritanica (Linnaeus)

Lacerta mauritanica Linnaeus, 1758, Syst. Nat., ed. 10, 1: 202—Mauritanica.

Tarentola mauritanica, Gray, 1845, Cat. Liz. Brit. Mus., p. 164; Boulenger, 1885, Cat. Liz. Brit. Mus., 1: p. 196; Anderson, 1898, Zool. Egypt, 1: p. 86; Flower, 1933, Proc. Zool. Soc. London, 1933, p. 766.

Tarentola mauritanica mauritanica, Mertens, 1925, Abh. Senckenberg. naturf. Ges., 39: p. 61; Loveridge, 1947, Bull. Mus. Comp. Zool., 98: p. 313.

Common name--Moorish Gecko; Moorish Wall Gecko.

Range--Countries and islands bordering the Mediterranean; Canary and Madeira Islands.

Specimens collected--161. Map 5.
GHARBIYA: Shirbin (1).
MATRUH: Cairo-Alexandria desert road, 32 km W of (1); Wadi Natroun (2): Wadi Natroun, El Beida (3); El Amiriya (27); Alexandria, 8 km W of, 15 km S of sea (3); Bahig (2); Sanyet el Agram (2); Burg el Arab (65); Mersa Matruh: Mersa Matruh (40), 72 km W of (1), 84.8 km W of (2); Sidi Barrani: Sidi Barrani (4), 0.6 km S of (1), 9.6 km W of (3), 48 km W of (2); Siwa Oasis, Ain Shefa (1).
ASWAN: west bank of Nile River (1).

Tropiocolotes nattereri Steindachner

Tropiocolotes nattereri Steindachner, 1901, Denks. Akad. Wiss. Wien, 69: p. 326, pl. 1, figs. 2-2a—Bir al Mashi (Mashiya) and Nawibi, Gulf of Akara, Sinai, Egypt; Flower, 1933, Proc. Zool. Soc. London, 1933: p. 762; Loveridge, 1947, Bull. Mus. Comp. Zool., 98: p. 51.

Common name--Natterer's Gecko.

Range--western Arabia and eastern Sinai.
Flower (1933) and Loveridge (1947) both question the distinction of this species from T. steudneri. Pasteur (1960) believes this species to be valid.

Tropiocolotes steudneri (Peters)

Gymnodactylus steudneri Peters, 1869, Monatsb. Akad. Wiss. Berlin, p. 788—Sennar, Anglo-Egyptian Sudan; Boulenger, 1885, Cat. Liz. Brit. Mus., 1: p. 34.

Stenodactylus petersii, Boulenger, 1885, loc. cit., p. 18.

Tropiocolotes steudneri, Boulenger, 1891, Trans. Zool. Soc. London, 13: p. 108; Anderson, 1891, Zool. Egypt, 1: p.48, pl. 4, fig. 9; Flower, 1933, Proc. Zool. Soc. London, 1933: p. 761; Loveridge, 1947, Bull. Mus. Comp. Zool., 98: p. 52.

Common name--Steudner's Gecko; Steudner's Pigmy Gecko.

Range--extreme southwestern Asia, Sinai, Egypt, and Sudan west to the Algerian Sahara.

Specimens collected--33. Map 6.
SUEZ: Wadi Gindali (1).

RED SEA: Ras Gharib (1); Hurghada (1); Wadi Ghuweibba (1); Bir 'braq (1-USNM); Wadi Asyuti, 20.8 km SW of Asyuti (1).
CAIRO: Maadi (2); Maadi, 3.2 km E of (1).
GIZA: Abu Rawash area (4); El Harraniya (3-USNM), Cairo, 24 km W of (14-USNM).
ASWAN: Wadi Abbad (3).

Tropiocolotes tripolitanus tripolitanus (Peters)

Tropiocolotes tripolitanus Peters, 1880, Monatsb. Akad. Wiss. Berlin, p. 306, 1 pl., fig. 1—Uadi M'bellam, Tripolitanica; Anderson, 1898, Zool. Egypt, 1: p. 47; Flower, 1933, Proc. Zool. Soc. London, 1933: p. 761.

Stenodactylus tripolitanus, Boulenger, 1885, Cat. Liz. Brit. Mus., 1: p. 19.

Tropiocolotes tripolitanus tripolitanus, Loveridge, 1947, Bull. Mus. Comp. Zool., 98: p. 54.

Common name--Tripoli Gecko; Tripoli Pigmy Gecko.

Range--Egypt west to Tunisia.

Specimens collected--8. Map 6.
SINAI: El Arish (1-USNM).
GIZA: Abu Rawash (5-USNM).
FAIYUM: Gezeiret el Qarn, Lake Qarun (2-USNM).

AGAMIDAE

Key to the Species of Agamidae

1. Tail with regular whorls of hard spinose scales 2
   Tail without regular whorls of hard spinose scales 6

2. Each tail whorl consisting of two rows of scales dorsally . . . . . Agama stellio (p. 12)
   Each tail whorl consisting of one row of scales dorsally (Uromastix) 3

3. Ventral scales of tail as long as those dorsally 4
   Ventral scales of tail shorter than those dorsally 5

4. Anterior border of ear with concial lobules . . . . . Uromastix ornatus (p. 13)
   Anterior border of ear without conical lobules . . . . . Uromastix ocellatus (p. 13)

5. Enlarged scales on forearm interspersed with smaller scales . . . . . Uromastix aegyptius (p. 13)
   No enlarged scales on forearm . . . . . Uromastix acanthinurus (p. 12)

6. Dorsal scales subequal 7
   Dorsal scales with intermixed enlarged scales . . . . . Agama mutabilis (p. 11)

7. Third toe longest . . . . . Agama sinaita (p. 12)
   Fourth toe longest 8

8. Long head spines . . . . . Agama agama spinosa (p. 11)
   No long head spines . . . . . Agama savigyi (p. 11)

Agama agama spinosa Gray

Agama spinosa Gray, 1931, in Griffith, Cuvier's Anim. Kingdom, 9: Syn., p. 57—Africa (restricted to Suakin, Sudan); Boulenger, 1885, Cat. Liz. Brit. Mus., 1: p. 355; Anderson, 1898, Zool. Egypt, 1: p. 114, pl. 10, figs. 2-3; Flower, 1933, Proc. Zool. Soc. London, 1933: p. 772.

Agama agama spinosa, Parker, 1942, Bull. Mus. Comp. Zool., 91: p. 49; Schmidt and Marx, 1957, Bull. Zool. Soc. Egypt, no. 13, p. 18.

Common name--Gray's Agama

Range--Egypt to Eritrea, Ethiopia, and Somalilands.

Specimens collected--34. Map 7.
RED SEA: Bir Abraq (18); Gebel Qattar, 55 mi SW of Hurghada (2); Wadi el Ghadir (1); Wadi Abu Shih (1).
SOUTHEASTERN DESERT: Gebel Elba, Bir Kansisrob (1).
GIZA: 6 km W of Cairo (3).
MATRUH: Bahig (8).

Agama mutabilis Merrem

Agama mutabilis Merrem, 1820, Tent. Syst. Amphib., p. 50—Egypt; Boulenger, 1885, Cat. Liz. Brit. Mus., 1: p. 338; Anderson, 1898, Zool. Egypt, 1: p. 94, pl. 9; Flower, 1933, Proc. Zool. Soc. London, 1933: p. 768.

Agama pallida Reuss, 1834, Mus. Senckenb., 1: p. 38—Sinai (by designation of Anderson, 1896); Boulenger, 1885, op. cit., p. 348; Anderson, 1898, op. cit., p. 100; Flower, 1933, loc. cit., p. 769.

Pasteur and Bons (1960) synonymized A. pallida Reuss with Agama mutabilis Merrem.

Common name--Changeable Agama; Pale Agama.

Range--North Africa from Tunisia to southern Israel.

Specimens collected--135. Map 8.
ISMAILIA: Qassim, 3 km SE of (1).
SUEZ: Wadi Iseili, tributary 24 km E of Kutamiya Observatory (4); Wadi Gindali (2); Cairo-Suez road (km E of Cairo): 28.8 (7), 32 (4), 35.2 (2), 57 km (2).
RED SEA: Wadi Asyuti, 20.8 km SE of Asyut (1).
SHARQIYA: Bilbeis (2); Minyet Salamant (2).
BEHEIRA: El Birigat (1); El Khataba (4); Hafs (1).
CAIRO: Gebel el Ahmar (3); Helwan (2).
GIZA: El Saff (1); Giza Pyramids (5); Abu Rawash (5); El Qatta (2); Wardan (6).
FAIYUM: Bait el Asfar (1); Kafr Mahfuz (3).
MINYA: El Bahnasa (1).
MATRUH: Bir Victoria (1); Wadi Natroun (8); Cairo-Alexandria desert road, 179 km NW of Cairo (2); El Amiriya (4). Bahig: Bahig (6); 48 km S of (1), 112 km S of (1). Burg el Arab (25). Mersa Matruh: Mersa Matruh (7), 8 km E of (3), 4.8 km E of (3), 1.6 km E of (1). Sidi Barrani: 1.6 km S of (2); 48 km W of (3). Salum (2). Bir Sheferzen (1), 9.6 km E of (1).
TAHREER: El Birigat, 1 km W of (2).

Agama savignyi Duméril and Bibron

Agama savignyi Duméril and Bibron, 1837, Erp. Gén., 4: p. 508; Flower, 1933, Proc. Zool. Soc. London, 1933: p. 770.

Agama flavimaculata, Rüppell, Anderson, 1898, Zool. Egypt, 1: p. 110, pl. 11.

Common name--Savigny's Agama.

Range--eastern Egypt to Israel.

Specimens collected--3. Map 8.
SUEZ: 36.8 km S of halfway mark, Cairo-Suez Road (1).
QALUBIYA: Kafr Abu Sir (2).

Agama sinaita Heyden

Agama sinaita Heyden, 1827, in Rüppell, Atlas Reise nörd. Afr., Rept., p. 10—Sinai; Boulenger, 1885, Cat. Liz. Brit. Mus., 1: p. 339; Anderson, 1898, Zool. Egypt, 1: p. 106, pl. 10, fig. 1; Flower, 1933, Proc. Zool. Soc. London, 1933: p. 771.

Common name--Sinai Agama.

Range--Israel, Arabia, and Sinai southwest into Egypt to Eritrea.

Specimens collected--25. Map 8.
SINAI: St. Catherine's Monastery area (+ 5000 ft. alt.): Monastery area (4); Raba (2), between Raba and Wadi Rada (4), Wadi Haroon (1), Wadi el Sheikh (2).
SUEZ: Wadi Doum, 25 km S of Ain Sukhna (1); Wadi Doum (1); Wadi Qiseib (2).
RED SEA: Quseir, 40 km W of (1); Wadi el Sukkari (2); Wadi Abu Shih (1).
CAIRO: Helwan, Wadi Hof (2).
ASWAN: Wadi Rashed (2).

Agama stellio (Linnaeus)

Lacerta stellio Linnaeus, 1758, Syst. Nat., ed. 10, 1: p. 202—Delos, Cyclades.

Agama stellio, Boulenger, 1885, Cat. Liz. Brit. Mus., 1: p. 368; Anderson, 1898, Zool. Egypt, 1: p. 122, fig. 7; Flower, 1933, Proc. Zool. Soc. London, 1933: p. 775.

Common name--Starred Agama.

Range--Southeast Europe, west Asia, and northeast Africa.

Specimens collected--183. Map 7.
SINAI: Feiran Oasis (+ 1500 ft. alt.), (25). St. Catherine's Monastery area (+ 5000 ft. alt.): Monastery area (12), Raba (32), Wadi el Arbaeen (1), Wadi Haroon (1), Wadi el Sheikh (5), between Raba and Wadi Rada (2); mouth of Wadi Rada (3).
FAIYUM: Kom O Shim (3).
MATRUH: El Amiriya (38); Bahig (9); Bahig, 8.4 km NE of (1). Burg el Arab (38), 1.6 km N of (4), 8 km E of (5), Ras el Hekma (4).

Uromastix acanthinurus Bell

Uromastix acanthinurus Bell, 1825, Zool. Jour. London, 1: p. 457—near Biskra, northwards to El Kantara, Algeria (restricted fide Hartert, 1913); Boulenger, 1885, Cat. Liz. Brit. Mus., 1: p. 780; Anderson, 1898, Zool. Egypt, 1: p. 131, pl. 15; Flower, 1933, Proc. Zool. Soc. London, 1933: p. 780.

Common name--Bell's Dabb-Lizard.

Range--North Africa and Sinai.

Specimens collected--1. Map 9.
SUEZ: Cairo-Suez Road, 39 km (1).

Uromastix aegyptius (Forskal)

Lacerta aegyptia Forskal, 1775, Descr. Anim., p. 13—Egypt.

Uromastix spinipes Gray, Boulenger, 1885, Cat. Liz. Brit. Mus., 1: p. 407.

Uromastix aegyptius, Anderson, 1896, Herp. Arabia & Egypt, p. 129, pl. 14; 1898, Zool. Egypt, 1: p. 129; Flower, 1933, Proc. Zool. Soc. London, 1933: p. 779.

Common name--Egyptian Dabb-Lizard.

Range--Egypt, Sinai, and northern Arabia.

Specimens collected--15. Map 9.
SINAI: Feiran Oasis (+ 1000 ft. alt.), 16 km W of (1).
SUEZ: Suez (1); Gebel Suez (1); Kutamiya Observatory area (1); Wadi Iseili, 3.2 km NE of Katamiya Observatory (1); Cairo-Suez road (km E of Cairo): not stated (3); 5 (1); 17 (3), 29 (1), 32 (1).
QALUBIYA: Kafr Abu Sir (1).

Uromastix ocellatus (Lichtenstein)

Uromastix ocellatus Lichtenstein, 1823, Verz. Doubl. Zool. Mus. Berlin, p. 107—Nubia; Boulenger, 1887, Cat. Liz. Brit. Mus., 3: p. 499; Anderson, 1898, Zool. Egypt, 1: p. 127, pl. 12; Flower, 1933, Proc. Zool. Soc. London, 1933: p. 777.

Common name--Eyed Dabb-Lizard.

Range--Northeast Africa.

Specimens examined--13. Map 9.
RED SEA: Bir Abraq (12).
SOUTHEASTERN DESERT: Gebel Elba, 3.2 km N or Bir Kansisrob (1).

Uromastix ornatus Heyden

Uromastix ornatus Heyden, 1827, in Rüppell, Atlas Reise nörd. Afr., Rept., p. 1—Mohila or Moila, Arabia; Boulenger, 1885, Cat. Liz. Brit. Mus., 1: p. 406; Anderson, 1898, Zool. Egypt, 1: p. 128, pl. 13; Flower, 1933, Proc. Zool. Soc. London, 1933: p. 779.

Common name--Ornate Dabb-Lizard.

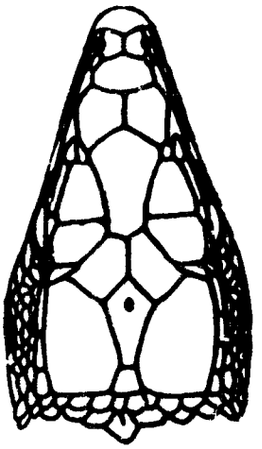
Range--Sinai and extreme southwest Asia.

LACERTIDAE

Key to Species of Lacertidae

1. Movable eyelids absent, i.e. "snake eyes" (Ophisops) 2
   Lower eyelids movable 3

2. Scales on dorsal suface of neck very small and granular; supraoculars separated from superciliaries by a series of small granules . . . . . Ophisops e. elegans (p. 19)
   Scales on dorsal suface of neck not granular, almost as large as those on back; supraoculars in contact with supraciliaries (Fig. 3) . . . . . Ophisops elbaensis (p. 19)



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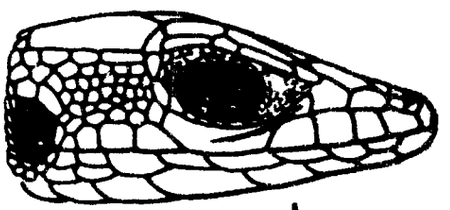

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FIGURE 3. Holotype of Ophisops elbaensis (from Schmidt and Marx, 1937, figs. 3C & D).

3. Digits, expecially fourth toe, with well developed lateral fringes (Acanthodactylus) 4
Digits without lateral fringes 7

4. All dorsal scales small and granular 5
Dorsal scales large and imbricate posteriorly, small and granular anteriorly 6

5. Four rows of scales around fingers . Acanthodactylus s. scutellatus (p. 17)
Three rows of scales around fingers . . . Acanthodactylus p. pardalis (p. 16)

6. Four rows of scales around fingers . . . . . Acanthodactylus cantoris arabicus (p. 16)
Three rows of scales around fingers . . . . . Acanthodactylus boskianus asper (p. 15)

7. Belly scales in less than eight longitudinal rows; nostril in contact with first upper labial 8
Belly scales in eight or more longitudinal rows; nostril not in contact with first upper labial (Eremias) 9

8. Longitudinal mid-dorsal scale rows distinctly enlarged (Fig. 4A) . . . . . Philochortus intermedius (p. 19)
Longitudinal mid-dorsal scales like adjacent scales on back (Fig. 4B) . . . . . Latastia l. longicaudata (p. 19)

9. Frontal separated from supraoculars by a ring of small granules . . . . . Eremias mucronata (p. 18)
Frontal in contact with supraoculars 10

10. Nasals in broad contact behind rostral . . . . Eremias g. guttulata (p. 17)
Nasals not in contact behind rostral (rarely just meeting) 11

11. Occipital present and in contact with the interparietal . . . . . Eremias rubropunctata (p. 18)
Occipital usually absent, when present not in contact with the interparietal . . . Eremias brevirostris (p. 17)

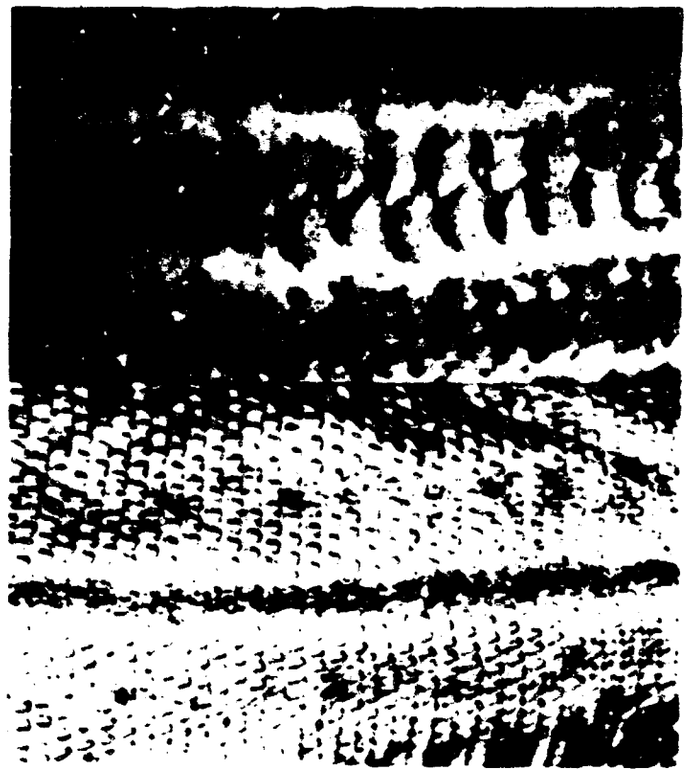

FIGURE 4. Dorsal scales of (A) Philochortus intermedius - FMNH 154611 and (B) Latastia longicaudata - FMNH 73620.

Acanthodactylus boskianus asper (Audouin)

Lacerta aspera Audouin, 1829. Descr. Egypte, Rept., Suppl., p. 173, pl. 1, fig. 9—Egypt.

Acanthodactylus boskianus var. asper, Lataste, 1885, Ann. Mus. Genova, (2), 2: p. 496; Boulenger, 1921, Monog. Lacertidae, 2: p. 88.

Acanthodactylus boskianus, Boulenger (part), 1887, Cat. Liz. Brit. Mus., 3: p. 59; Anderson, 1898, Zool. Egypte, 1: p. 148, pl. 20; Flower, 1933, Proc. Zool. Soc. London, 1933: p. 792.

Common Name--Boec's Lizard.

Range--Eastern Morocco to Eritrea and southwestern Asia.

Specimens collected--325. Maps 10 & 10A.

SINAI: Bir Thal (near sea level) (1); Feiran Oasis (+ 1500 ft. alt.) (27), 1.6 km E of (3); St. Catherine's Monastery area (+ 5000 ft. alt.): Monastery area (11), between Raba and Wadi Rada (29), Wadi el Arbaeen (5), Wadi el Sheikh (2).
PORT SAID: El Gamil Beach (1).
ISMAILIA: El Ballah (1).
SUEZ: Ain Sukhna area (2); Wadi Iseili tributary, 21 km E of Katamiya Observatory (19); Wadi Naam (1); Cairo-Suez road, near halfway mark (6); Wadi Qiseib (6); Wadi Doum area (2).
RED SEA: Wadi el Nil, S of Abu Darag (4); Fawakhir Mine area (1).
SOUTHEASTERN DESERT: Halaib, 22.4 km N of (3), 20.8 km N of (1); Bir Sarara (2); Wadi Aideib, 3.2 km N of Bir Kansisrob (1).
DAMIETTA: Kafr el Battikh (1).
SHARQIYA: El Abbassa (3).
QALUBIYA: El Marg (1); Kafr Abu Sir (3).
KAFR EL SHEIKH: Baltim (7); El Sheikh Mubarak (12).
BEHEIRA: El Birigat (1); Abu el Matamir (4).
CAIRO: Abbasia (2); Gebel el Ahmar (1); Ain Shams (4); Maadi (2); Helwan, Wadi Hof (3); Helwan, 1.6 km S of (1).
GIZA: Cairo, 6 km W of (3); Mit Riheina (3); Giza Pyramids (10); Giza (1); Kirdasa (1); Abu Rawash (5); Abu Rawash, 6.4 km NW of (2); El Mansuriya (5); Manshiyet Radwan (2); Birqash (2); Abu Ghalib (1).
FAIYUM: Qarun, Gezeiret el Qarn (1); Kom O Shim (32); Kafr Mahfuz (23).
ASYUT: Durunka (4).
ASWAN: Aswan (2); Aswan, 1.6 km SE of (3); Wadi Umm Karayiet (1); Wadi Haimur (3).
MATRUH: Wadi Natroun (12); El Amiriya (1); Burg el Arab (9); Mersa Matruh (10), 8 km E of (1), 1.6 km E of (2), 32 km W of (1); Sidi Barrani (1), 19.2 km E of (1), 3.2 km E of (5), 48 km W of (2).

Acanthodactylus cantoris arabicus Boulenger

Acanthodactylus cantoris var. arabicus Boulenger, 1918, Bull. Soc. Zool. France, 43: p. 154--southern Arabia; 1921, Monog. Lacertidae, 2: p. 95.

Acanthodactylus cantoris arabicus, Parker, 1931, Ann. Mag. Nat. Hist., (1), 8: p. 521.

Range--Southern Arabia to Sinai.
Bons, Girot, and Pasteur (1960) report this species from Sinai; Hoofien (1965) rejects it from Sinai.

Acanthodactylus pardalis pardalis (Lichtenstein)

Lacerta pardalis Lichtenstein, 1823, Verz. Doubl. Mus. Berlin, p. 99—Egypt.

Acanthodactylus pardalis, Boulenger, 1887, Cat. Liz. Brit. Mus., 3: p. 65; 1921, Monog. Lacertidae, 2: p. 62; Anderson, 1898, Zool. Egypt, 1: p. 151, pl. 21; Flower, 1933, Proc. Zool. Soc. London, 1933: p. 794.

Acanthodactylus pardalis pardalis, Loveridge, 1936, Field Mus. Nat. Hist., Zool. Ser., 22: p. 61.

Common name--Egyptian Leopard Lizard.

Range--northern Africa, from Tripoli to Israel.

Specimens collected--108. Map 11.
SINAI: St. Catherine's Monastery area, between Raba and Wadi Rada (+ 5000 ft. alt.) (1).
PORT SAID: El Gamil Beach (4).
DAMIETTA: Kafr el Battikh (1).

BEHEIRA: Abu el Matamir (11).
GIZA: Giza Pyramids (1); Abu Rawash (1).
FAIYUM: Kom O Shim (1); Kafr Mahfuz (1).
MATRUH: Cairo-Alexandria desert road, 179 km NW of Cairo (4); Wadi Natroun (8); Bahig (10); Burg el Arab (10); El Hauwariya (26); Mersa Matruh (24); Mersa Matruh, 5 km W of (1); Sidi Barrani (2); Sidi Barrani, 19.2 km S of (1); Salum, 32 km SW of (1).

Acanthodactylus scutellatus scutellatus (Audouin)

Lacerta scutellata Audouin, 1829, Descr. Egypte, Rept., Suppl., p. 172, pl. 1, fig. 7—Egypt.

Acanthodactylus scutellatus, Duméril and Bibron, 1839, Erp. Gén., 5: p. 272; Boulenger, 1887, Cat. Liz. Brit. Mus., 3: p. 64; 1921, Monog. Lacertidae, 2: p. 97; Anderson, 1898, Zool. Egypt, 1: p. 161, pl. 22; Flower, 1933, Proc. Zool. Soc. London, 1933: p. 795.

Acanthodactylus scutellatus scutellatus, Loveridge, 1936, Field Mus. Nat. Hist., Zool. Ser., 22: p. 61.

Common name--Nidua Lizard.

Range--Algerian Sahara to southwest Asia.

Specimens collected--91. Map 11.
SINAI: St. Catherine's Monastery area, between Raba and Wadi Rada (+ 5000 ft. alt.) (1).
SOUTHEASTERN DESERT: Gebel Elba, Bir Kansisrob (1).
QALUBIYA: Kafr Abu Sir (1).
BEHEIRA: El Birigat, 1 km W of (1).
CAIRO: Helwan, Wadi Hof (1).
GIZA: Giza Pyramids (17); Abu Rawash (6); Kom Bira (1); El Mansuriya (6); Abu Ghalib, 1.6 km W of (4); Cairo-Alexandria desert road, 10 km W of Cairo (2).
FAIYUM: Kom O Shim (9); Kafr Mahfuz (6); Wadi Muwellih (19).
MINYA: El Bahnasa (1).
ASWAN: Wadi Allaimur (1).
MATRUH: Bir Victoria (1); Wadi Natroun (1); El Alamein (1); Salum (1); Salum, 3.2 km SW of (1); Siwa Oasis (2); Siwa Oasis, Ain Shefa (7).

Eremias brevirostris (Blanford)

Mesalina brevirostris Blanford, 1874, Ann. Mag. Nat. Hus., (4), 14: p. 32—Kalabagh, Punjab and Tumb Island, Persian Gulf (type locality restricted to Kalabagh by Schmidt, 1939).

Eremias brevirostris, Boulenger, 1887, Cat. Liz. Brit. Mus., 3: p. 89; 1921, Monog. Lacertidae, 2: p. 273; M. A. Smith, 1935, Fauna Brit. India, Rept. & Amph., 2: p. 390.

Range--Sinai to northwestern India.
Hoofien (1957) records this species in Sinai: from Tiran Island off the southern tip and Ras Muhammad; on the tip across from Tiran Island. Map 12.

Eremias guttulata guttulata (Lichtenstein)

Lacerta guttulata Lichenstein, 1823, Verz. Doubl. Mus. Berlin, p. 101—Egypt and Nubia.

Eremias guttulata, A. Smith, 1845, Ill. Zool. S. Afr., Rept., pl. 48, fig. 8; Boulenger, 1887, Cat. Liz. Brit. Mus., 3: p. 87, 1921, Monog. Lacertidae, 2: p. 258; Anderson, 1898, Zool. Egypt, 1: p. 174, pl. 23, figs. 3-4; Flower, 1933, Proc. Zool. Soc. London, 1933: p. 797.

Eremias guttulata guttulata, Wettstein, 1928, Sitzber. Akad. Wiss. Wien (math.-natur.), 137: p. 782.

Common name--Small-spotted Lizard; Long-tailed Desert Lacerta.

Range--north Africa to Iraq.

Specimens collected--111. Map 13.
SINAI: Feiran Oasis (+ 1500 ft. alt.) (1); St. Catherine's Monastery area (+ 5000 ft. alt.): Monastery area (10), Raba (2), between Raba and Wadi Rada (8), Wadi el Arbaeen (3), Wadi el Sheikh (4).
SUEZ: Wadi Qiseib (2); Wadi Iseili, 11.2 km NW of Kutamiya Observatory (1).
RED SEA: Ras Zafarana, Wadi Araba (1).
SOUTHEASTERN DESERT: Gebel Elba (2).
GIZA: Mit Riheina (2).
QENA: Luxor (1).
ASWAN: Wadi Haimur (1); Wadi Umm Kamayiet (1); Wadi El Nagib (1).
MATRUH: Wadi Natroun (5); Cairo-Alexandria desert road, 179 km NW of Cairo (1); El Amiriya (1); Bahig (21); Burg el Arab (13); El Hauwariya (3); Ras el Hekma (1); Mersa Matruh (13); Mersa Matruh, 8 km E of (6); Mersa Matruh, 1.6 km E of (1); Salum 3.2 km E of (1); Bir Sheferzen (2); Siwa Oasis (2); Siwa Oasis, Ain Shefa (1).

Eremias mucronata (Blanford)

Acanthodactylus mucronatus Blanford, 1870, Zool. Abyss., p. 453, fig. —Anseba Valley, Eritrea.

Eremias mucronata, Anderson, 1898, Zool. Egypt, 1: p. 169, pl. 23, figs. 1-2; Boulenger, 1921, Monog. Lacertidae, 2: p. 244; Flower, 1933, Proc. Zool. Soc. Egypt, 1933: p. 796.

Common name--Aseba Lizard.

Range--Sinai south to Eritrea and Somalilands.

Specimens collected--1. Map 13.
SOUTHEAST DESERT: Halaib, 16 km N of (1).

Eremias rubropunctata (Lichtenstein)

Lacerta rubropunctata Lichenstein, 1823, Verz. Doubl. Mus. Berlin, p. 100— Egypt and Nubia.

Eremias rubropunctata, Duméril and Bibron, 1839, Erp. Gén., 5: p. 297; Boulenger, 1887, Cat. Liz. Brit. Mus., 3: p. 89; 1921, Monog. Lacertidae, 2: p. 276; Anderson, 1898, Zool. Egypt, 1: p. 183, pl. 23, figs. 5-6; Flower, 1933, Proc. Zool. Soc. London, 1933: p. 798.

Common name--Red-spotted Lizard.

Range--North Africa from Algeria to Sinai.

Specimens collected--34. Map 12.
SUEZ: Ain Sukhna (1).
RED SEA: Ras Gharib (1).
GIZA: Giza Pyramids (1); El Mansuriya (1); Abu Rawash (11); Abu Rawash, 6.4 km NW of (1); Cairo-Alexandria desert road, km W Cairo: 6(2), 10(2), 17(2).
FAIYUM: Kom O Shim (3), Kair Mahfuz (4).
ASWAN: Wadi el Allaqi, 11.2 km S of (2).
MATRUH: El Amiriya (1); El Maghra Oasis (1); Salum, 19.2 km SW of (1).

Latastia longicaudata longicaudata (Reuss). Figure 4B

Lacerta longicaudata Reuss, 1834, Mus. Senckenb., 1: p. 29—Ethiopia.

Latastia longicaudata, Boulenger, 1887, Cat. Liz. Brit. Mus., 3: p. 55; 1921, Monog. Lacertidae, 2: p. 25; Anderson, 1898, Zool. Egypt, 1: p. 143, pl. 19; Flower, 1933, Proc. Zool. Soc. London, 1933: p. 792.

Latastia longicaudata longicaudata, Loveridge, 1936, Field Mus. Nat. Hist., Zool. Ser., 22: p. 60.

Common name--Long-tailed Lizard.

Range--Senegal and nothern Nigeria to Ethiopia, northward along the Red Sea to Sinai.

Specimens collected--4. Map 14.
SOUTHEASTERN DESERT: Halaib, 20.8 km W of (1); Wadi Aideib, N of Bir Kansisrob: 3.2 km (1), 4 km (2).

Ophisops elbaensis Schmidt and Marx. Figure 3.

Ophisops elbaensis Schmidt and Marx, 1957, Bull. Zool. Soc. Egypt (1955-1956), no. 13, p. 20—Wadi Kansisrob, Gebel Elba, Sudan Government Administrative Area, Egypt, ± 4,000 ft. alt.

Common name--Mount Elba Snake-eyed Lizard (here constructed).

Range--Known only from the type locality.

Specimens collected--1. Map 14.
SOUTHEASTERN DESERT: Gebel Elba, Wadi Kansisrob (1).

Ophisops elegans elegans Ménétries

Ophisops elegans Ménétries, 1832, Cat. Rais, p. 63—near Baku, Caspian Sea; Boulenger, 1887, Cat. Liz.Brit. Mus., 3: p. 75; 1921, Monog. Lacertidae, 2: p. 211; Flower, 1933, Proc. Zool. Soc. London, 1933: p. 796.

Ophisops elegans elegans, Lantz, 1931, Bull. Mus. Georgia, 6: p. 31.

Common name--Ménétries's Lizard.

Range--Northeast Africa, southwest Asia to Transcapica.

Specimens collected--9. Map 14.
RED SEA: Ras Zafarana, Wadi Araba (2)
MATRUH: Burg el Arab (6); Salum (1).

Philochortus intermedius Boulenger. Figures 4A and 5.

Philochortus intermedius Boulenger, 1917, Proc. Zool. Soc. London, 1917: p. 152, pl. 2, figs. 2-3-Wagga and Berbera, northern Somaliland; 1921, Monog. Lacertidae, 2: p. 9.

Range--northern Kenya to northern Somaliland; Egypt.

Specimens collected--8. Map 14.
MATRUH: Wadi Natroun (8).

These eight specimens are the first recorded Philochortus from Egypt. They appear not to differ from Boulenger's (1921) description of this species or from one of the syntypes (MCZ 28695). This record extends the range of Philochortus intermedius approximately 1200 air-miles north-northeast. The nearest member of this genus (see below) is approximately 400 air-miles to the west.

A second specimen of Philochortus zolli Scortecci (MCZ 46850) is here recorded from Cyrenaica (35 miles west of Ajedabja, 10 miles south of Libyan Coast). This specimen conforms closely to the original

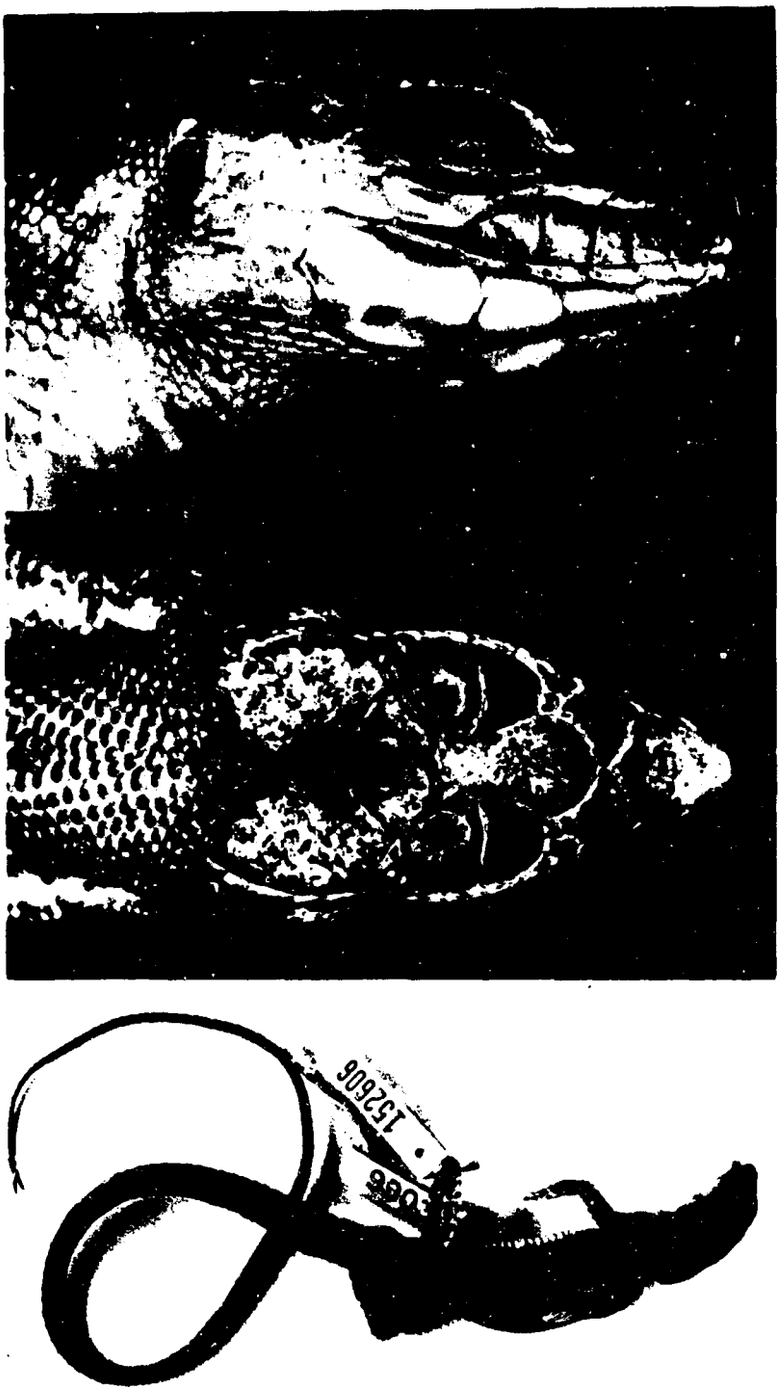

FIGURE 5. Philochortus intermedius - FMNH 152606.

description of zolli and differs from the Egyptian intermedius in having the prefrontals separated from each other, frontal length equal its distance to snout (longer in CNHM 152606-07, 154606-11), and a very narrow interparietal.

The possibility of distinguishing P. zolli from P. intermedius at the specific level must await the availability of adequate samples from geographically intermediate populations.

External morphological features of Egyptian P. intermedius can be seen in Figures 4A and 5. The following data are descriptive counts of these eight lizards: dorsal-lateral scale rows at mid-body 31-37 (mean 33.9 [8]); ventral plates at mid-body 6; labials anterior to the subocular 4-6 (4.9 [16]); large upper temporals adjacent to the parietal 1-2; femoral pores 10-14 (12.3 [16]); lamellae under fourth toe 28-36 (31.3 [16]); snout-vent length 52-73mm.; tail length of the six lizards with complete tails 149-215 mm.; six white narrow longitudinal lines; three of the eight animals have a small scale between the prefrontals.

These animals were collected in a desert cultivated with barley; 15 March, 1964 and 26-27 May, 1965.

VARANIDAE

Key to the Species of Varanidae

1. Nostril an elongated slit very close to eye . . Varanus g. griseus (p. 21)
   Nostril small, round, and about midway between eye and end of snout . . . . . Varanus n. niloticus (p. 21)

Varanus griseus griseus (Daudin)

Tubinambis griseus Daudin, 1803, Hist. Nat. Rept., 8: p. 352.

Varanus griseus, Boulenger, 1885, Cat. Liz. Brit. Mus., 2: p. 306; Anderson, 1898, Zool. Egypt, 1: p. 134, pl. 16; Mertens, 1942, Abh. Senckenberg, Naturf. Ges., 466: p. 338.

Varanus griseus griseus, Mertens, 1954, Senckenb. biol., 35: p. 354.

Common name--Desert Monitor.

Range--Southwest Asia and northern Africa to Rio de Oro.

Specimens collected--24. Map 15.
SOUTHEASTERN DESERT: Wadi Aideib, 3.2 km N of Bir Kansisrob (2).
SHARQIYA: Tel el Kebir (1).
BEHEIRA: El Birigat. 1 km W of (1); El Khataba (2); Abu el Matamir, 12 km W of (1).
GIZA: Giza Pyramids (1); Abu Rawash (1); El Qatta (8); Abu Ghalib (1).
FAIYUM: Wadi Muwellih (2).
MINYA: El Bahnasa (1).
MATRUH: Sidi Barrani: 3.2 km S of (2), 48 km W of (1).

Varanus niloticus niloticus (Linnaeus)

Lacerta nilotica Linnaeus, 1766, ed. 12, 1: p. 369--Egypt.

Varanus niloticus, Boulenger, 1885, Cat. Liz. Brit. Mus., 1: p. 317; Anderson, 1898, Zool. Egypt, 1: p. 140, pl. 18; Flower, 1933, Proc. Zool Soc. London, 1933: p. 801.

Varanus niloticus niloticus, Mertens, 1942, Abh. Senckenberg. Naturf. Ges., 466: p. 320.

Common name--Nile Monitor.

Range--Southern and tropical Africa; along the Nile into Egypt.

SCINCIDAE

Key to Species of Scincidae

1. Toes with broad fringes . . . . . Scincus s. scincus (p. 25)
   Toes without broad fringes 2

2. Dorsal scales keeled (Mabuya) 3
   Dorsal scales not keeled 4

3. Forelimb, when laid back along the side, covers more than half the distance between shoulder and insertion of hindlimb . . . . . Mabuya q. quinquetaeniata (p. 24)
   Forelimb, when laid back along the side, covers less than half the distance between shoulder and insertion of hindlimb . . . . . Mabuya vittata (p. 24)

4. Dorsal scales grooved . . . . . Scincopus fasciatus (p. 24)
   Dorsal scales smooth or feebly striated 5

5. Snout with sharp horizontal edge . . . . . Chalcides sepsoides (p. 23)
   Snout with round edge 6

6. Eyelids absent, pupil always visible, i.e., "snake eyed" . . . . . Ablepharus kitaibeli (p. 22)
   Lower eyelid present and movable 7

7. Anterior border of ear opening with a fringe of conical scales; lower eyelid scaly . . . . . Eumeces schneideri (p. 23)
   Anterior border of ear opening smooth; lower eyelid with a transparent disk . . . . Chalcides o. ocellatus (p. 22)

Ablepharus kitaibeli Bibron and Bory

Ablepharus kitaibelii Bibron and Bory, 1833, in Bory, Exped. Sci. Moree, 3: p. 69, pl. 11, fig. 5—Ruins of Pylos, Messenia; Flower, 1933, Proc. Zool. Soc. London, 1933: p. 786.

Common name--Hungarian Skink.

Range--Southeast Europe and west Asia.

Chalcides ocellatus ocellatus (Forskål)

Lacerta ocellata Forskål, 1775, Descr. Anim., p. 13—Egypt.

Chalcides ocellatus, Boulenger, 1887, Cat. Liz. Brit. Mus., 3: p. 400; Anderson, 1898, Zool. Egypt, 1: p. 210, pl. 28, fig. 1; Flower, 1933, Proc. Zool. Soc. London, 1933: p. 789.

Chalcides ocellatus ocellatus, Wettstein, 1928, Sitzber. Akad. Wiss. Wien, mach.-natur., 137, abt. 1, p. 784.

Common name--Eyed Skink; Ocellated Skink.

Range--North Africa to Israel.

Specimens collected--259. Map 16.
SINAI: Bir Thal (near sea level) (1); near and in Feiran Oasis (± 1500 ft. alt.) (3); St. Catherine's Monastery area (± 5000 ft. alt.): Monastery area (1), Wadi el Sheikh (2).
SUEZ: Aîn Sukhna (1); Wadi Iseili tributary, 24 km E of Kutamiya

Observatory (1); Cairo-Suez road + 100 km E of Cairo (2).
DAMIETTA: Damietta (5); Gheit el Nasara (2).
DAQAHLIYA: Mit Mazzah (3); Shawa (1); Minshat el Ikhwa (2); Mit Ghamer (3); Minshat el Sughra (1).
SHARQIYA: El Abbassa (1); Abu Suweir (5); Tel el Kebir (2); Abu Kebir (3); El Beirum (1); El Qantara (1); El Huseiniya (1).
QALUBIYA: Sindbis (1); Tel el Atrib (2).
GHARBIYA: Basyun (1); Talkha (1).
BEHEIRA: El Birigat (4); Hafs (1).
CAIRO: city (1); Abbassia (2); Zenhom (1); Helwan (1); Dokki (4).
GIZA: El Burumbul (4); Mit Riheina (2); Abu Sir (1); Faiyum road, 10.5 km SW of Giza (4); Giza Pyramids (3); Abu el Numrus (2); Zawyet Abu Musallam (3); Saft el Laban (1); Abu Rawash (8); Abu Rawash, 6.4 km NW of (5); Kafr Hakim (2); El Mansuriya (12); Manshiyit Radwan (5); Nikla (4); Mitimdiya (1); Minshat el Bakkari (1).
FAIYUM: Kom O Shim area (37).
MINYA: El Mawadda (2); Samalut (1); El Birba el Kubra (1).
ASYUT: Durunka (2); Wadi Asyuti (1).
MATRUH: Wadi Natroun (12); El Amiriya (6); Bahig (10); Bahig, 24 km S of (1); Burg el Arab (26); Mersa Matruh: Mersa Matruh (9), 20 km E of (1), 16 km E of (1), 8 km E of (1); Sidi Barrani, 30.4 km E of (2), 19.2 km E of (1), 1.6 km S of (2), 9.6 km W of (3), 48 km W of (2); Salum (2), 12.8 km E of (3), 3.2 km E of (1), 4.8 km E of (1); Siwa Oasis (11); El Bahrein Oasis (1).

Chalcides sepsoides (Audouin)

Scincus sepsoides Audouin, 1827, Descr. Egypte, Rept., Suppl., p. 180, pl. 2, figs. 9-10—Egypt.

Chalcides sepsoides, Boulenger, 1887, Cat. Liz. Brit. Mus., 3: p. 407; Anderson, 1898, Zool. Egypt 1: p. 220, pl. 28, fig. 2; Flower, 1933, Proc. Zool. Soc. London, 1933: p. 790.

Common name--Audouin's Sand-Skink.

Range--Northern Africa (Sinegambia) to southwestern Asia (Israel).

Specimens collected--58. Map 17.
SUEZ: Ain Sukhna (1); Wadi Gindali (1); Cairo-Suez road: 48 km W of Suez (3), 35 km E of Cairo (1).
ISMAILIA: Ismailia, 6.4 km W of (2).
SHARQIYA: Tel el Kebir (1).
GIZA: El Saff (1); El Burumbul (3); Giza Pyramids (1); Zawyet Abu Musallam (1); Abu Rawash (4); Kafr Hakim (2); El Mansuriya (9); Birqash (2); El Qatta (1).
FAIYUM: Kom O Shim (7); Kafr Mahfuz (1); Dimu (1); El Lahun (1); Wadi Muwellih (1).
ASYUT: Durunka, 4.8 km NW of (1).
MATRUH: Wadi Natroun (3); Sidi Barrani, 19.2 km E of (1); Sidi Barrani, 48 km W of (1); Salum (2); Salum, 32 km E of (1); Bir El Shaqqa (± 500 ft. alt.) (1); Siwa Oasis (4).

Eumeces schneideri (Daudin)

Scincus schneideri Daudin, 1802, Hist. Nat. Rept., 4: p. 291—West Asia.

Eumeces schneideri, Boulenger, 1887, Cat. Liz. Brit. Mus., 3: 383; Anderson, 1898, Zool. Egypt, 1: p. 196, pl. 25; Flower, 1933 Proc. Zool. Soc. London, 1933: p. 787.

Common name--Gold Skink; Orange-tailed Skink.

Range--North Africa and west Asia.

Specimens collected--109. Map 18.

SINAI: Saint Catherine's Monastery area (+ 5000 ft. alt.): Monastery area (2), between Raba and Wadi Rada (2); Raba (3), Wadi el Sheikh (2).
BEHEIRA: Abu el Matamir (2).
MATRUH: El Amiriya (5); Dikheila, 4.8 km W of (2); Ikingi Mariut (3); Bahig (15); Burg el Arab (58); Ras El Hekma (1); El Alamein (1); Alexandria, 64 km W of (1); Sidi Barrani: 19.2 km S of (2), 48 km W of (7); Siwa Oasis (3).

Mabuya quinquetaeniata quinquetaeniata (Lichtenstein)

Scincus quinquetaeniata Lichtenstein, 1823, Verz. Doubl. Mus. Berlin, p. 103—Egypt and Nubia.

Mabuya quinquetaeniata, Boulenger, 1887, Cat. Liz. Brit. Mus., 3: p. 198; Anderson, 1898, Zool. Egypt, 1: p. 187, pl. 24, figs. 1-3; Flower, 1933, Proc. Zool. Soc. London, 1933: p. 785.

Mabuya quinquetaeniata quinquetaeniata, Loveridge, 1936, Field Mus. Nat. Hist., Zool. Ser., 22: p. 68.

Common name--Bean Skink.

Range--North of Uganda to Egypt.

Specimens collected--41. Map 19.
SHARQIYA: Abu Suweir (1); Tel el Kebir (1); Abu Kebir (1).
QALUBIYA: El Marg (1).
CAIRO: Abbassia (2); Shoubra (2); Helwan (1).
GIZA: El Burumbul (1); Zawyet Abu Musallam (1); Abu Rawash (2); Abu Rawash, 6.4 km NW of (1); Nahya (2).
FAIYUM: Kom O Shim (1).
MINYA: Idmu (1).
ASYUT: Durunka (1).
QENA: Wadi Nassim (3).
ASWAN: Aswan (10); Ballana (2); west bank of Nile River (4).
MATRUH: El Amiriya (3).

Mabuya vittata (Olivier)

Scincus vittatus Olivier, 1804, Voy. Emp. Ottoman, 3: p. 103—sands west of Rosetta.

Mabuya vittata, Boulenger, 1887, Cat. Liz. Brit. Mus., 3: p. 176; Anderson, 1898, Zool. Egypt, 1: p. 193, pl. 24, fig. 4; Flower, 1933, Proc. Zool. Soc. London, 1933: p. 784.

Common name--Bridled Skink.

Range--North Africa and southwest Asia.

Specimens collected--1. Map 19.
DAMIETTA: Kafr el Battikh (1).

Scincopus fasciatus (Peters)

Scincus (Scincopus) fasciatus Peters, 1864, Mon. Berl. Ak., p. 45—Geryville, Algeria.

Scincus fasciatus, Boulenger, 1887, Cat. Liz. Brit. Mus., 3: p. 390.

Scincopus fasciatus, Anderson, 1896, Herpet. Arabia & Egypt, p. 104; 1898, Zool. Egypt, 1: p. 201, pl. 21.

Common name--Greyville Skink.

Range--Saharan North Africa from Mauritania to Khartoum, Sudan.

This species has not been collected in Egypt. Flower (1933: p. 784) comments on its range and its expectancy in Egypt.

Scincus scincus scincus (Linnaeus)

Lacerta stincus Linnaeus, 1758, Syst. Nat., ed. 10, 1: p. 205—Libya, Egypt, and Arabia Petreae.

Scincus officinalis Laurenti, Boulenger, 1887, Cat. Liz. Brit. Mus., 3: p. 391; Anderson, 1898, Zool. Egypt, 1: p. 205, pl. 27.

Scincus stincus, Flower, 1933, Proc. Zool. Soc. London, 1933: p. 788.

Scincus scincus scincus, Loveridge, 1936, Field Mus. Nat. Hist., Zool. Ser., 22: p. 72.

Common name--Sandfish.
Schmidt and Marx (1956) comment on the erroneous spelling of the species name.

Range--northeastern Africa.

Specimens collected--87. Map 18.
SHARQIYA: Minyet Salamant (3); Tel el Kebir (1).
MINUFIYA: Quweisna (2).
BEHEIRA: El Khataba (2).
GIZA: Giza Pyramids (22); Zawyet Abu Musallam (1); Abu Rawash area (17); El Mansuriya (8); Manshiyet Radwan (10); Cairo-Alexandria desert road, W of Cairo 6 km (2), ± 10 km (1).
FAIYUM: Wadi Muwellih (6).
BENI SUEF: Maidum (2).
ASYUT: Beni Adi (6); Durunka, 4.8 km NW of (1).
MATRUH: Wadi Natroun (1); Burg el Arab (2).

CHAMAELEONTIDAE

Chamaeleo chamaeleon chamaeoleon (Linnaeus)

Lacerta chamaeleon Linnaeus, 1758, Syst. Nat., ed. 10, 1: p. 204—North Africa.

Chamaeleon chamaeleon chamaeleon, Werner, 1911, Das Tierreich, 27: p. 10.

Common name--Common or European Chamaeleon.

Range--South Europe, North Africa, and Southwestern Asia.

Specimens collected--86. Map 15.
SUEZ: Saray el Bayda (1); Wadi Nasuri, ± 32 km E of Cairo (2).
BEHEIRA: Hafs (10).
ALEXANDRIA: Alexandria, 4.8 km W of (1).
MATRUH: Wadi Natroun (22); El Amiriya (3); Bahig (21); Burg el Arab (13); El Daba (1); El Maghra Oasis (2); Mersa Matruh (7); El Garawla (1); Sidi Barrani, 3.2 km S of (1); Salum (1).

Suborder SERPENTES

Key to Species of Snakes

1. Ventral shields same as dorsal scales (worm snakes) 2

Ventral shields distinctly larger than dorsal scales 4

2. Midbody scale rows 14 3
Midbody scale rows more than 14 . . . . . *Typhlops vermicularis* (p. 28)

3. Underside of rostral rounded; snout not hooked in profile . . . . . *Leptotyphlops cairi* (p. 28)
Underside of rostral concave; snout hooked in profile . . . . . *Leptotyphlops macrorhynchus* (p. 28)

4. Head covered with small scales 5
Head covered with large shields 11

5. Head not distinct from neck; no fangs (boas) 6
Head distinct from neck; front fangs present (vipers) 7

6. Scales between eyes across head 5-8; mental groove absent or very faint . . . . . *Eryx j. jaculus* (p. 29)
Scales between eyes across head 10-15; mental groove present . . . . . *Eryx c. colubrinus* (p. 29)

7. Subcaudals single 8
Subcaudals paired 9

8. Scales on snout smooth or slightly keeled; 3-4 series of scales between eye and upper labials . . . . . *Echis coloratus* (p. 42)
Scales of snout strongly keeled; usually 2 series of scales between eye and upper labials . . . . . *Echis carinatus* (p. 42)

9. Gulars, ventrals, and subcaudals keeled; keels of lateral scales serrated 10
Gulars, ventrals, and subcaudals smooth; keels of lateral scales smooth . . . . . *Vipera persica fieldi* (p. 42)

10. Scale between eyes 9-13; ventrals less than 130 . . . *Cerastes vipera* (p. 41)
Scales between eyes 15 or more; ventrals more than 130 . . . . . *Cerastes cerastes* (p. 41)

11. Loreal absent 12
Loreal present 18

12. Dorsal scales keeled throughout entire length of body . . . . . *Dasypeltis s. scabra* (p. 33)
Dorsal scales smooth in at least anterior half of body 13

13. Anal plate single (venomous) 14
Anal plate divided 16

14. Subcaudals single (viper) . . . . . *Atractaspis engaddensis* (p. 41)
Subcaudals paired (cobras) 15

15. Subocular excludes eye from upper labials; 1 anterior temporal . . . . . *Naja h. haje* (p. 39)
Eye in contact with at least one upper labial; 2 anterior temporals . . . . . *Naja n. nigricollis* (p. 40)

16. Scales keeled posteriorly; uniformly blackish, large snake (venomous, elapid) Figure 10 . . . . . *Walterinnesia aegyptia* (p. 40)
Scales smooth throughout body; small light-colored snake 17

17. Belly spotted or blotched . . . . . Eirenis coronella (p. 33)
Belly not spotted or blotched . . . . . Eirenis coronelloides (p. 33)

18. No upper labials enter eye . . . . . Spalerosophis diadema cliffordi (p. 38)
At least one upper labial enters eye 19

19. Dorsal scales strongly keeled . . . . . Natrix tessellata (p. 35)
Dorsal scales not keeled 20

20. Dorsal suface of snout with longitudinal concave furrow . . . . . Malpolon monspessulanus insignatus (p. 35)
Dorsal suface of snout flat 21

21. Profile of head distinctly and sharply convex . . . . . Malpolon moilensis (p. 34)
Profile normal, i.e., ovate 22

22. One anterior temporal 23
Two or more anterior temporals 26

23. Anal plate entire . . . . . Lycophidion c. capense (p. 33)
Anal plate divided 24

24. Scale rows 15 25
Scale rows more than 15 . . . . . Macroprotodon c. cucullatus (p. 34)

25. Belly spotted or blotched . . . . . Eirenis coronella (p. 33)
Belly not spotted or blotched . . . . . Eirenis coronelloides (p. 33)

26. Loreal enters eye below preocular . . . . . Telescopus hoogstraali (p. 39)
Loreal excluded from eye by preocular 27

27. Loreal very elongate, at least twice as long as broad 28
Loreal squarish, not twice as long as broad 30

28. Continuous narrow dark longitudinal band on side of head 29
No continuous narrow dark longitudinal band on side of head . . . . . Psammophis sibilans sibilans (p. 37)

29. Belly with a broad black longitudinal band (Figure 8B); ventrals less than 180 . . . . . Psammophis schokari schokari (p. 35)
Belly with very fine dots (Figure 8C) or no markings; ventrals more than 180 . . . . . Psammophis schokari aegyptius (p. 37)

30. Lateral edges of rostral projecting 31
Lateral edges of rostral not projecting 32

31. Large spots on back; rostral very strongly projecting . . . . . Lytorhynchus diadema (p. 34)
Black circular bands interrupted on belly; rostral weakly projecting . . . . . Coluber sinai (p. 32)

32. Head squarish; posterior chinshields 2/3, or less than 2/3 length of anterior pair; rear fangs present . . . . . Telescopus dhara obtusus (p. 38)
Head ovate; posterior chinshields equal to, or greater than, anterior pair; no fangs 33

33. Black circular bands interrupted on belly 34
No black circular bands interrupted on belly 35

34. Scales in 19 rows at mid-body . . . . . Coluber elegantissimus (p. 29)
Scales in 17 rows at mid-body . . . . . Coluber sinai (p. 32)

35. A median dark dorsal stripe on tail . . . . . Coluber ravergieri (p. 31)
No median dark dorsal stripe on tail 36

36. Scale rows 19 37
Scale rows 21 or more . . . . . Coluber florulentus (p. 31)

37. Subcaudals 106 or less . . . . . Coluber rogersi (p. 31)
Subcaudals more than 106 . . . . . Coluber r. rhodorachis (p. 32)

TYPHLOPIDAE

Typhlops vermicularis Merrem

Typhlops vermicularis Merrem, 1820, Tent. Syst. Amphib., p. 158—Greek Islands; Boulenger, 1893, Cat. Sn. Brit. Mus., 1: p. 21; Flower, 1933, Proc. Zool. Soc. London, 1933: p. 802.

Common name--Greek Blind Snake.

Range--Southeastern Europe, northeastern Africa, and western and southwestern Asia, as far east as Afghanistan and Turkestan.

LEPTOTYPHLOPIDAE

Leptotyphlops cairi (Duméril & Bibron)

Stenostoma cairi Duméril & Bibron, 1844, Erp. Gén., 6: p. 323—Cairo, Egypt.

Glauconia cairi, Boulenger, 1893, Cat. Sn. Brit. Mus., 1: p. 65; Anderson, 1893, Zool. Egypt, 1: p. 233, pl. 32, fig. 1, text fig. 9.

Leptotyphlops cairi, Parker, 1932, Proc. Zool. Soc. London, 1932: P. 362; Flower, 1933, ibid., p. 803.

Common name--Cairo Earth-Snake.

Range--Northern Africa.

Specimens collected--60. Map 20.
SOUTHEASTERN DESERT: Wadi Aideib, 3.2 km N of Bir Kansisrob (1).
CAIRO: Cairo (1).
GIZA: El Burumbul (3); Mit Riheina (1); Kirdasa (1); Abu Rawash (52); Birqash (1).

Leptotyphlops macrorhynchus (Jan)

Stenostoma macrorhynchum Jan, 1862, Arch. Zool. Anat. Phys., 1: p. 190—Sennar.

Glauconia macrorhynchus, Boulenger, 1893, Cat. Sn. Brit. Mus., 1: p. 61.

Leptotyphlops macrorhynchus, Corkill, 1932, Snakes and Snake Bite Iraq, p. 8.

Common name--Beaked Thread Snake.

Range--North Africa, southwest Asia to Sind.

Specimens collected--1. Map 20.
SINAI: St Catherine's Monastery area (+ 5000 ft. alt.), Raba (1).
This is the first record of this species from Egypt.

BOIDAE

Eryx colubrinus colubrinus (Linnaeus)

Anguis colubrina Linnaeus, 1758, Syst. Nat., ed. 10, 1: p. 228—Egypt.

Eryx thebaicus Reuss, 1834, Mus. Senckenb., 1: p. 134; Boulenger, 1893, Cat. Sn. Brit. Mus., 1: p. 125; Anderson, 1898, Zool. Egypt, 1: p. 236, pl. 32, fig. 2.

Eryx colubrinus, Flower, 1933, Proc. Zool. Soc. London, 1933: p. 804.

Eryx colubrinus colubrinus, Stull, 1935, Proc. Boston Soc. Nat. Hist., 40: p. 406.

Common name--Theban Sand-Boa.

Range--Egypt south to East Africa.

Specimens collected--21. Map 21.
SOUTHEASTERN DESERT: Gebel Elba, 3.2 km N of Bir Kansisrob (4).
FAIYUM: near Lake Qarun (7); Sinnuris (2).
BENI SUEF: Beni Suef (2).
ASYUT: Durunka (4).
MATRUH: Mersa Matruh (2).

Eryx jaculus jaculus (Linnaeus)

Anguis jaculus Linnaeus, 1758, Syst. Nat., ed. 10, 1: p. 228—Egypt.

Eryx jaculus, Daudin, 1803, Hist. Rept., 7: p. 257; Boulenger, 1893, Cat. Sn. Brit. Mus., 1: p. 125; Anderson, 1898, Zool. Egypt, 1: p. 240, pls. 33-33A; Flower, 1933, Proc. Zool. Soc. London, 1933: p. 805.

Eryx jaculus jaculus, Carevsky, 1915, Ann. Mus. Zool. Petrograd, 20: p. 373, fig. 7; Stull, 1935, Proc. Boston Soc. Nat. Hist., 40: p. 406.

Common name--Javelin Sand-Boa.

Range--north central Africa eastward into southwestern Asia to the Caspian Sea.

Specimens collected--14. Map 21.
SHARQIYA: Tel Basta (1).
GIZA: Mit Rihcina (2); Abu Rawash (1).
MATRUH: Burg el Arab (2); El Hauwariya (1); Sidi Barrani: 32 km E of (1), 1.6 km W of (1), 19.2 km SW of (1), 19.2 km S of (2), 1.6 km S of (1), 6.4 km S of (1).

COLUBRIDAE

Coluber elegantissimus (Günther)

Zamenis elegantissimus Günther, 1878, Proc. Zool. Soc. London, 1878: p. 977, pl. 57 - mountains east of El Muwaylah, Midian, Arabia; Hart, 1891, Fauna Flora Sinai, pp. 28 & 209 —Petra, Wady 'Arabah; Boulenger, 1893, Cat. Snakes Brit. Mus., 1: p. 402.

Coluber elegantissimus, Flower, 1933, Proc. Zool. Soc. London, 1933: p. 811.

Common name--Most Beautiful Snake.

Range--Israel, northwestern and central Arabia; probably Sinai.

Specimens examined--7.

ISRAEL: Ein Ghadian (Yotvata) (HU 3666; TAU 2281); Bir Hindis (Be'er Ora) (TAU 2871, 5774); Akaba (BMNH 84.6.18.1).

SAUDI ARABIA: near Haile (BMNH 1963-469); Rumaihiya—25° 30'N X 47° O'E (BMNH 1964.152).

This species has not been recorded from Egypt. The specimen from Akaba and additional material from southern Israel makes this speices occurrence in Sinai almost certain.

Coluber elegantissimus superficially appears to resemble Coluber sinai. The difference between components of the tail, head scutallation, and coloration (Table 3) confirms the distinction of these two species.

CHARACTERS	ELEGANTISSIMUS			SINAI		
Midbody scale rows	19 [1]		3 [2]	17 [1]		3 [2]
Subcaudals: ♂♂	79–84	(81.0) [3]	3	93+ [5]		1
Subcaudals: ♀♀	78–81	(79.5)	4	94		1
Temporals: anterior	2		8	2		3
Temporals: posterior	2–3	(2.1)	16 [4]	3		6 [4]
Relative tail length to total length: ♂♂	0.243–0.358	(0.319)	3	0.255		1
Relative tail length to total length: ♀♀	0.224–0.250	(0.237)	4	0.260		1
Reduction to two dorsal scale rows on tail counting subcaudals — from vent	55–73	(63.9)	7	67–85	(76.0) [3]	2
Reduction to two dorsal scale rows on tail counting subcaudals — from tip	7–25	(16.6)	7	12–26+ [5]		2
Coloration:						
Total black bands	29–39	(34.1)	8	44+ [5]– 51		3
Body and head black bands	21–28	(23.6)	8	21–26	(22.7)	3
Tail black bands	8–13	(10.5)	8	23–30	(25.7)	3
Length of black bands at midbody [6]	2 1/2 – 5		8	2		3
Length of light interspaces between black bands at midbody [6]	4 1/2 – 9		8	2 1/3 – 3		3
Length of dark nape band (3rd band)	5 1/2 – 9		8	3–4		3
Central light stripe in midline	present		8	absent		3

[1] range. [2] number of specimens. [3] mean in ( ). [4] each side of head counted as one. [5] almost complete tail. [6] length in terms of longitudinal dorsal scales on midline.

Table 3. Comparison of certain characters of Coluber elegantissimus and Coluber sinai. Data of the holotype of C. elegantissimus are included in table and taken from original description.

Coluber florulentus Geoffroy

Coluber florulentus Geoffroy, 1827, Descr. Egypte, Hist. Nat., 1: p. 151—Egypt; Flower, 1933, Proc. Zool. Soc. London, 1933: p. 811.

Zamenia florulentus, Boulenger, 1893, Cat. Sn. Brit. Mus., 1: p. 402; Anderson, 1898, Zool. Egypt, 1: p. 256, pl. 37; fig. 1.

Common name--Flowered Snake.

Range--Northeast Africa.

Specimens collected--50. Map 22.
DAMIETTA. Damietta (1).
DAQHALIYA: Minshat el Ikhwa (2).
SHARQIYA: Tel Basta (1).
QALUBIYA: El Matariya (1).
GHARBIYA: Mit Nabit (1).
BEHEIRA: Hafs (1); Idfina (2).
CAIRO: Heliopolis (1); Bab el Shariya (1); Boulac (1).
GIZA: Mit Rihcina (1); Giza Pyramids (4); Abu el Numrus (3); El Talbiya (2); Cairo, 4 km W of (1); Abu Rawash (8); Kom Bira (1); El Baragil (1); El Mansuriya (2); Abu Ghalib (1).
FAIYUM: Lake Qarun, Gezeiret el Qarn (1); Kom O Shim (3); Bait el Asfar (2).
BENI SUEF: Beni Suef (3).
MINYA: Maghagha (1); El Birba el Kubra (1).
ASWAN: El Dakka (1).
MATRUH: Wadi Natroun (1); Ikingi Mariut (1).

Coluber ravergieri Ménétries

Coluber ravergieri Ménétires, 1832, Cat. Rais, Obj. Zool. Voy. Caucase, p. 69--Georgia; Flower, 1933, Proc. Zool. Soc. London, 1933: p. 812.

Zamenis ravergieri, Boulenger, 1893, Cat. Sn. Brit. Mus., 1: p. 405; Anderson, 1898, Zool. Egypt, 1: p. 260.

Common name--Ravergier's Whip-Snake; Coin-marked Snake.

Range--Extreme northeast Africa; western and central Asia.
Flower (1933) records this species in Egypt from Helwan; Moharrem Bey, Alexandria; Cairo; Wadi Feiran, Sinai. Map 23.

Coluber rhodorhachis rhodorhachis (Jan)

Zamenis rhodorhachis Jan, 1865, in De Filippi, Viagg. Pers., p. 356—Schiras, central Iran (restricted file Kramer and Schnurrenberger, 1963); Boulenger, 1893, Cat. Sn. Brit. Mus., 1: p. 398; Anderson, 1898, Zool. Egypt, 1: p. 252, pl. 35.

Coluber rhodorhachis, Parker, 1931, Ann. Mag. Nat. Hist., (10), 8: p. 516; Flower, 1933, Proc. Zool. Soc. London, 1933: p. 809.

Coluber rhodorhachis rhodorhachis, Parker, 1949, Snakes Somalil. Sokotra Ids., p. 37.

Common name--Jan's Desert Racer; Cliff Racer.

Range--From Libya to northwest India.

Specimens collected--4. Map 23.
SINAI: St. Catherine's Monastery area (± 5000 ft. alt.), Wadi el Sheikh (3).
CAIRO: Helwan, Wadi Hof (1).

Coluber rogersi (Anderson)

Zamenis rogersi Anderson, 1893, Ann. Mag. Nat. Hist., (6), 12: p. 439—desert east of Helwan, near Cairo; 1896, Zool. Egypt, 1: p. 254; Boulenger, 1896, Cat. Sn. Brit. Mus., 3: p. 623.

Coluber rogersi, Flower, 1933, Proc. Zool. Soc. London, 1933: p. 810.

Common name--Rogers' Snake.

Range--Eastern Libya, Egypt, and extreme southwestern Asia.

Specimens collected--10. Map 23.
SINAI: St. Catherine's Monastery area (± 5000 ft. alt.) (3).
SUEZ: Cairo-Suez road (km E of Cairo); ± 17 (1), ± 32 (1).
CAIRO: Abbassia (1).
MATRUH: Burg el Arab (2), Mersa Matruh (2).

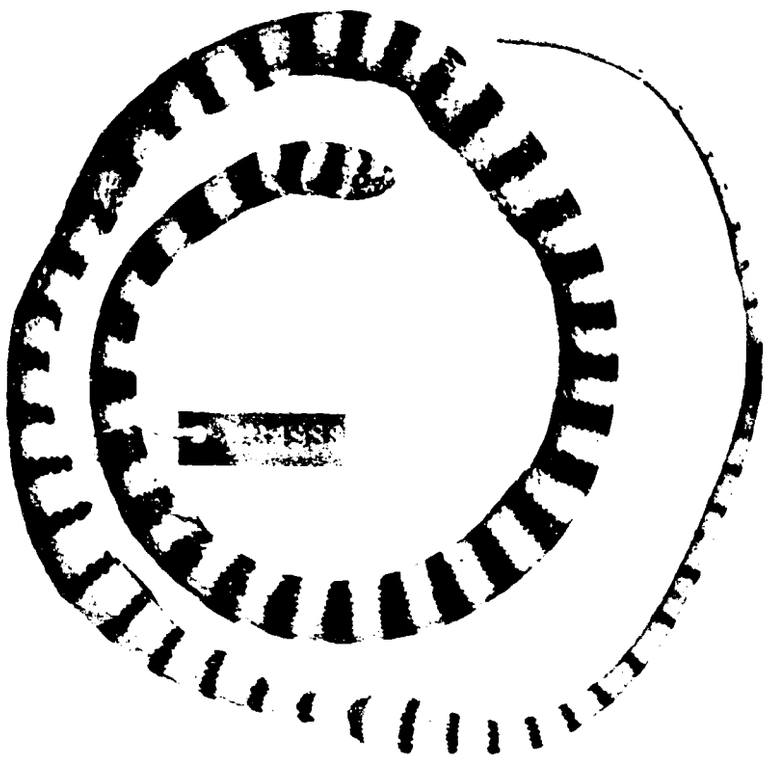

FIGURE 6. Holotype (USNM 134989) of Coluber sinai (after Schmidt and Marx, 1956, fig. 4).

Coluber sinai (Schmidt and Marx) new combination Figure 6

Lytorhynchus sinai Schmidt and Marx, 1956, Fieldiana, Zool., 39: p. 30—Wadi Feiran, Sinai Peninsula.

Common name--Sinai-Banded-Snake (here proposed).

Range--Sinai.

Specimens collected--2 (3 examined). Map 22.
SINAI: St. Catherine's Monastery area, Wadi el Sheikh (1).

A second specimen (holotype) of this species, from Wadi Feiran, Sinai,

is housed in the United States National Museum. A third specimen was also examined, without locality data. It is somewhat dried and is in several fragments (Giza Museum unnumbered).

Taxonomic notes--This species has a round pupil, apical pits, no exaggerated projecting rostral, and 12 maxillary teeth, the later teeth increasing in size posteriorly. This species is clearly a member of the genus Coluber, for all the above characters are foreign to the genus Lytorhynchus.

For characters distinguishing Coluber sinai from Coluber elegantissimus, a superficially similar species, see Table 3.

Dasypeltis scabra (Linnaeus)

Coluber scaber Linnaeus, 1758, Syst. Nat., ed. 10, 1: 223—in Indiis (Cape Colony, fide Flower, 1933).

Dasypeltis scabra, Gunther, 1858, Sn. Brit. Mus., p. 142; Boulenger, 1894, Cat. Sn. Brit. Mus., 2: p. 354; Anderson, 1898, Zool. Egypt, 1: p. 278, pl. 34, fig. 3; Flower, 1933, Proc. Zool. Soc. London, 1933: p. 818; Gans, 1959, Ann. Mus. Roy. Congo Belge, (8), 74: p. 141.

Common name--Egg-eating Snake.

Range--Africa and southeastern Arabia.

Eirenis coronella Schlegel

Calarmaria coronella Schlegel, 1837, Phys. Serp., 2: p. 48—Jerusalem.

Contia coronella, Boulenger, 1894, Cat. Sn. Brit. Mus., 2: p. 264; Chernov, 1948, Trudy Zool. Inst. Acad. Sci., Leningrad, 7: 119.

Eirenis coronella, Barbour, 1914, Proc. New Eng. Zool. Club, 5: p. 89.

Common name--Crowned Peace-Snake.

Range--Sinai and southwest Asia.

Eirenis coronelloides (Jan)

Homalosoma coronelloides Jan, 1862, Anat. Phys., 2: p. 34—Syria.

Contia fasciatus (Jan), Flower, 1933, Proc. Zool. Soc. London, 1933: p. 817.

Contia coronelloides, Chernov, 1948, Trudy Zool. Inst. Acad. Sci., Leningrad, 7: p. 119.

Eremias coronella (non Schlegel), Schmidt and Marx, 1956, Field., Zool, 39: 30.

Common name--Banded Peace-Snake.

Range--Sinai and southwest Asia.

Specimens collected--4. Map 24.
SINAI: St. Catherine's Monastery area (+ 5000 ft. alt.): Monastery area (3); Raba (1).

The identification of these snakes follows Chernov (1948); two specimens were identified as coronella by Schmidt and Marx (1956).

Lycophidion capense capense (A. Smith)

Lycodon capense A. Smith, 1831, S. Afr. Quart. Jour., (1), no. 5: p. 18—Kurrichange, i.e., Rustenberg, Transvaal.

Lycophidium capense, Boulenger, 1893, Cat. Sn. Brit. Mus., 1: p. 339.

Lycophidion capensis, Flower, 1933, Proc. Zool. Soc. London, 1933: p. 808.

Lycophidion capense capense, Loveridge, 1933, Bull. Mus. Comp. Zool., 74: p. 233.

Common name--Cape Wolf Snake.

Range--Africa.
Flower (1933) records a single Egyptian specimen from the Faiyum.

Lytorhynchus diadema (Duméril and Bibron)

Heterodon diadema Duméril and Bibron, 1854, Erp. Gén., 7: p. 779—Algeria.

Lytorhynchus diadema, Peters, 1862, Monatsber. Akad. Wiss. Berlin, 1862: p. 272; Boulenger, 1893, Cat. Sn. Brit. Mus., 1: p. 415; Anderson, 1898, Zool. Egypt, 1: p. 271, pl. 37, fig. 3; Flower, 1933, Proc. Zool. Soc. London, 1933: p. 815.

Common name--Diademed Sand-Snake.

Range--North Africa and southwest Asia.

Specimens collected--15. Map 25.
SINAI: St. Catherine's Monastery area (+ 5000 ft. alt.), Raba (1).
SOUTHEASTERN DESERT: Gebel Elba, 3.2 km N of Bir Kansisrob (1).
GIZA: Abu Rawash (3); Abu Rawash, 6.4 km NW of (3); Manshiyet Radwan (1); El Qatta (1).
FAIYUM: Kom O Shim (2); Fanus (1); Wadi Muwellih, Bir Dakaar area (1).
MATRUH: Burg el Arab (1).

Macroprotodon cucullatus (Geoffroy)

Coluber cucullatus Geoffroy, 1827, Descr. Egypte, Hist. Nat., 1: p. 151—Lower Egypt.

Macroprotodon cucullatus, Boulenger, 1891, Trans. Zool. Soc. London, 13: p. 149; 1896, Cat. Sn. Brit. Mus., 3: p. 175; Anderson, 1898, Zool. Egypt, 1: p. 308; Flower, 1933, Proc. Zool. Soc. London, 1933: p. 825.

Common name--Mediterranean Hooded Snake.

Range--southern Europe, northern Africa, and extreme southwestern Asia.

Specimens collected--30. Map 24.
MATRUH: Cairo-Alexandria desert road, 179 km NW of Cairo (1); Burg el Arab (21); Bahig (1); El Hauwariya (2); Mersa Matruh, 56 km W of (1); Sidi Barrani: 1.6 km S of (2), 1.6 km NE of (1), 19.2 km SW of (1).

Malpolon moilensis Reuss

Coluber moilensis Reuss, 1834, Mus. Senck., 1: p. 142—Moilah, Arabia.

Coelopeltis moilensis, Boulenger, 1896, Cat. Sn. Brit. Mus., 3: p. 143; Anderson, 1898, Zool. Egypt, 1: p. 292.

Malpolon moilensis, Parker, 1931, Ann. Mag. Nat. Hist., (10), 8: p. 522; Flower, 1933, Proc. Zool. Soc. London, 1933: p. 822.

Common name--Moila Snake.

Range--North Africa and southwestern Asia.

Specimens collected--15. Map 26.

SUEZ: Cairo-Suez road, 17 km E of Cairo (1).
GIZA: Imbaba (2); Abu Rawash (1); Abu Rawash, 6.4 km NW of (2); El Mansuriya (3); El Qatta (1).
FAIYUM: Bait el Asfar (1).
MATRUH: Wadi Natroun (2); Ras el Hekma (1); Sidi Barrnai, 48 km W of (1).

Malpolon monspessulanus insignitus (Geoffroy)

Coluber insignitus Geoffroy, 1827, Desc. Egypt, Hist. Nat., 1: p. 151—Lower Egypt.

Coelopeltis monspessulana, Boulenger, 1896, Cat. Sn. Brit. Mus., 3: p. 141; Anderson, 1898, Zool. Egypt, 1: p. 288, pl. 37, fig. 4.

Malpolon monspessulanus insignitus, Mertens and Muller, 1928, Abh. Sench. Ges., 41: p. 51

Malpolon monspessulanus, Flower, 1933, Proc. Zool. Soc. London, 1933: p. 821.

Common name--Montpellier Snake.

Range--North Africa and southwestern Asia.

Specimens collected--86. Map 26.
PORT SAID: Port Said (2); El Gamil Beach (1).
DAMIETTA: Fariskur, Shata (1); Kafr el Battikh (3).
KAFR EL SHEIKH: Baltim (2); Rosetta (2).
BEHEIRA: Abu el Matamir (4).
MATRUH: El Amiriya (9); El Amiriya, 32 km E of (1); Ikingi Mariut (2); Bahig (2); Burg el Arab (46); Mersa Matruh (1); Mersa Matruh, 12.8 km E of (1); Sidi Barrani (3), Sidi Barrani: 64 km E of (1), 1.6 km S of (2), 3.2 km W of (1), 19.2 km SW of (1); Siwa Oasis (1).

Natrix tessellata Laurenti

Coronella tessellata Laurenti, 1768, Syn. Rept., p. 87— Karst County, southern Carniola.

Natrix tessellata, Bonaparte, 1834, Iconogr. Fauna ital., 2: p. 11; Flower, 1933, Proc. Zool. Soc. Egypt, 1933: p. 807.

Tropidonotus tessellatus, Boulenger, 1893, Cat. Sn. Brit. Mus., 1: p. 233; Anderson, 1898, Zool. Egypt, 1: p. 246, pl. 34, fig. 1.

Common name--Diced Water Snake.

Range--Europe, northeastern Africa, southwestern and Central Asia.

Specimens collected--6. Map 24.
DAMIETTA: Gheit el Nasara, Lake Manzala (2); Kafr el Battikh (2).
KAFR EL SHEIKH: El Burg (2).

Psammophis schokari schokari (Forskal) Figures 7B and 8B

Coluber schokari Forskal, 1775, Descr. Anim., p. 14—Yemen.

Psammophis schokari, Boulenger, 1896, Cat. Sn. Brit. Mus., 3: p. 157; Anderson, 1898, Zool. Egypt, 1: p. 295, pls. 41-42; Flower, 1933, Proc. Zool. Soc. London, 1933: p. 823.

Psammophis schokari schokari, Kramer and Schnurrenberger, 1963, Rev. Suisse Zool, 70: p. 517.

Common name--Schokari Sand-Snake; Afro-Asian Sand Snake.

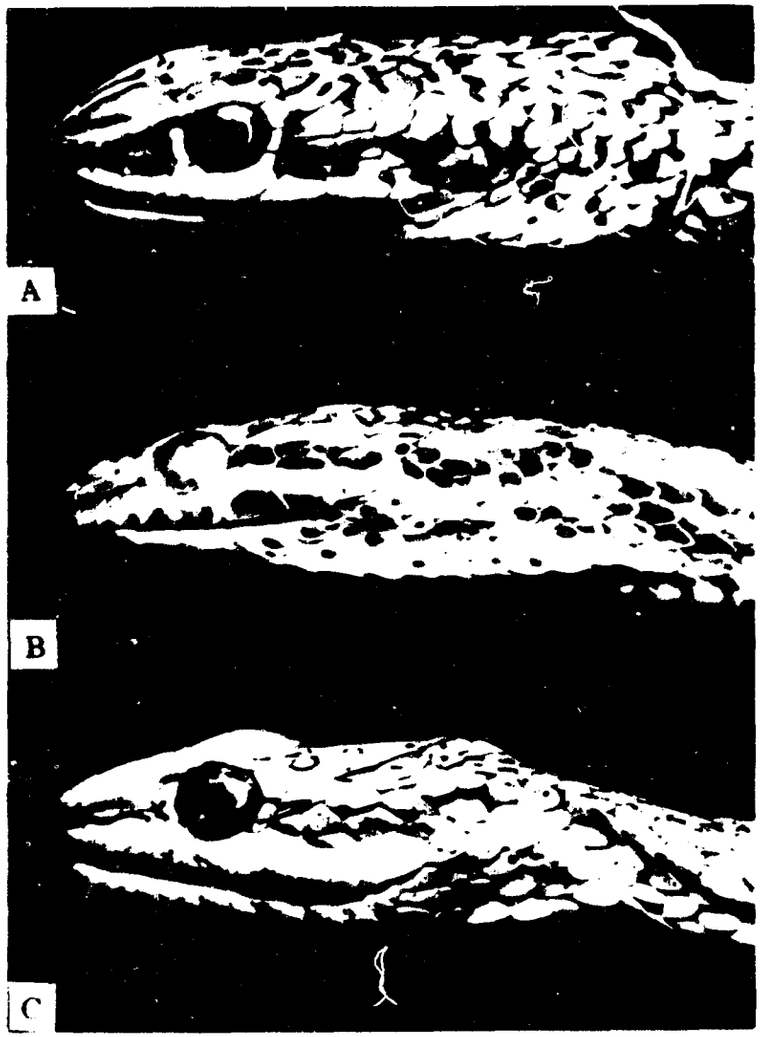

FIGURE 7. Lateral views of heads. A, Psammophis sibilans sibilans (FMNH 63138); B, P. schokari schokari (FMNH 66148); C, P. schokari aegyptius (FMNH 65923 - paratype). After Marx, 1958: fig. 30.

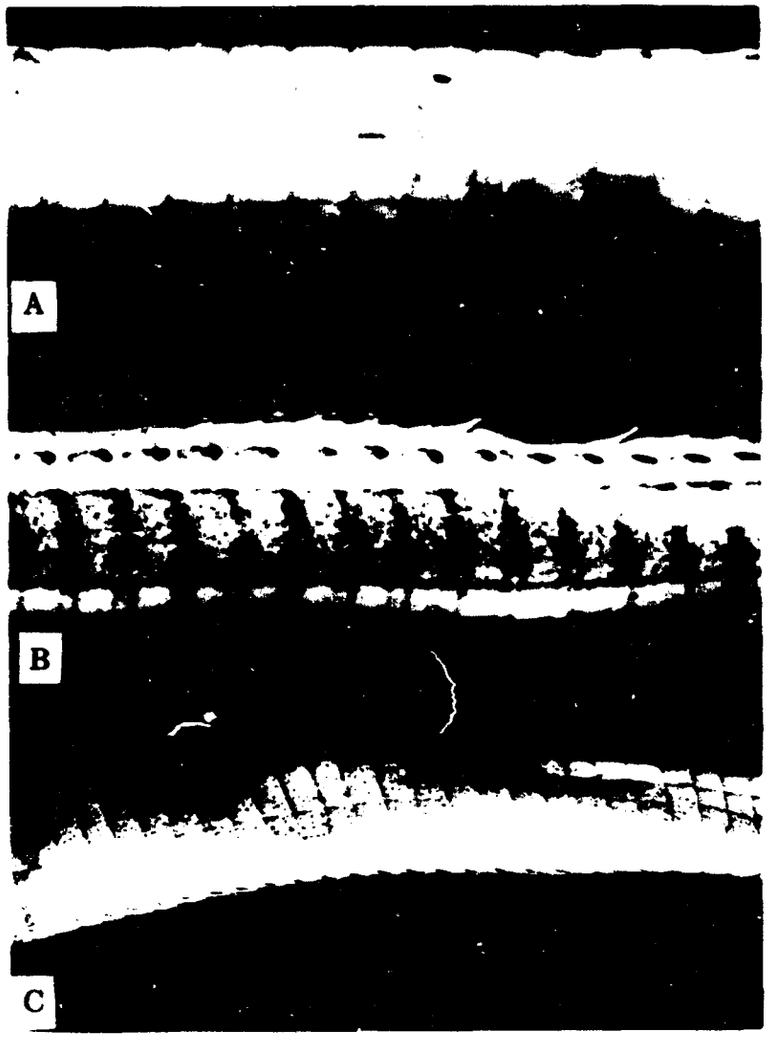

FIGURE 8. Ventral color patterns. A, Psammophis sibilans sibilans (FMNH 63138); B, P. schokari schokari (FMNH 66148); C, P. schokari aegyptius (FMNH 65923 - paratype). After Marx, 1958: fig. 31.

Range--North Africa, eastward through Iran, into arid west Pakistan and India.

Specimens collected--79. Map 27.
SINAI: St. Catherine's Monastery area (+ 5000 ft. alt.): Monastery area (1), between Raba and Wadi Rada (2), Rada Hardun (2), Wadi el Arbaeen (2).
ISMAILIA: Wadi el Gafra, 56 km E of Cairo (1).
SUEZ: Wadi Nasuri, + 32 km E of Cairo (1); Wadi Ghuweibba (1).
RED SEA: Giftun el Sahir Island (1).
SHARQIYA: Abu Suweir (1).
BEHEIRA: Rosetta, 17 km W of (1).
CAIRO: Bab el Shariya (1); Maadi (1).
GIZA: Abu Rawash (9); Abu Rawash, 6.4 km NW of (3); El Mansuriya (6); El Qatta (6).
[illegible]: Kom O Shim (1).
ASWAN: Wadi el Kanayis, 15 km E of Idfu (1).
MATRUH: Wadi Natroun (3); El Amiriya (3); Bahig (2); Sanyet el Agram (1); Burg el Arab (16); El Maghra Oasis (1); El Daba (1); Mersa Matruh (7); Ras el Hekma (1); Sidi Barrani, 3.2 km NW of (1); Bir El Shaqqa (1); Salum, 48 km E of (1).

Psammophis schokari aegyptius Marx Figure 7C and 8C.

Psammophis aegyptius Marx, 1958, Fieldiana, Zool., 39: p. 194—Siwa, Siwa Oasis, Western Desert Governorate, Egypt.

Psammophis schokari aegyptius, Kramer and Schnurrneberger, 1963, Rev. Suisse Zool., 70: p. 519.

Common name--Saharan Sand-Snake (here proposed).

Range--Oases of Libyan and Egyptian Sahara.

Specimens collected--9. Map 27.
RED SEA: Wadi Abu Shih (1).
FAIYUM: Wadi Muwellih (1).
QENA: Luxor (1).
ASWAN: Wadi el Nagib (1).
MATRUH: Bir Abdel Nabi (1); Siwa Oasis (4).

Psammophis sibilans sibilans (Linnaeus) Figure 7A and 8A.

Coluber sibilans Linnaeus (part), 1758, Syst. Nat., ed. 10, 1: p. 222—"Asia".

Psammophis sibilans, Boie, 1827, in Oken, Isis, 20: col. 547; Boulenger, 1896, Cat. Sn. Brit. Mus., 3: p. 161; Anderson, 1898, Zool. Egypt, 1: p. 302, pl. 43, text fig. 12; Flower, 1933, Proc. Zool. Soc. London, 1933: p. 824.

Psammophis sibilans sibilans, Loveridge, 1940, Bull. Mus. Comp. Zool., 87: p. 30.

Common name--African Beauty Snake.

Range--Africa.

Specimens collected--81. Map 28.
DAMIETTA: Kafr el Battikh (1).
GHARBIYA: Talkha (1).
BEHEIRA: El Khatatba (6).
GIZA: Mit Rihcina (2); Giza Pyramids (3); El Talbiya (2); Cairo, 4 km W of (5); Kirdasa (1); between Kirdasa and Abu Rawash (5); Abu Rawash (18); Kafr Hakim (3); El Mansuriya (15); El Mansuriya, 3.2 km W of (5); Birqash (2); Abu Ghalib (1); Minshat el Bakkari (1).

FAIYUM: Kom O Shim (3), Kasr Rashwan (1); Minshat Tantawi (1); Sinnuris (1).
BENI SUEF: Beni Suef (1).
ASWAN: Ballana (1).
MATRUH: El Amiriya (2).

Spalerosophis diadema cliffordi (Schlegel)

Coluber cliffordi Schlegel, 1837, Phys. Serp., 2: p. 163—Tripoli, Libya.

Zamenis diadema, Boulenger, 1893, Cat. Sn. Brit. Mus., 1: p. 410; Anderson, 1898, Zool. Egypt, 1: p. 267, pl. 38.

Spalerosophis diadema cliffordi, Mertens, 1956, Senck. biol., 37: p.225; Marx, 1959, Fieldiana, Zool., 39: p. 350.

Spalerosophis diadema, Flower, 1933, Proc. Zool. Soc. London, 1933: p. 813.

Common name--Clifford's Snake; Clifford's Royal Snake.

Range--North Africa (Morocco and French West Africa) to southwestern Asia (extreme western Iran).

Specimens collected--62. Map 29.
SINAI: Feiran Oasis (+ 1500 ft. alt.) (1).
ISMAILIA: Ismailia, 6.4 km W of (2).
SUEZ: Wadi Iseili Tributary, 24 km E of Kutamiya Observatory (1); Cairo-Suez road, 29 km E of Cairo (1).
SOUTHEASTERN DESERT: Gebel Elba, 3.2 km N of Bir Kansisrob (1).
SHARQIYA: Tel Basta (2); Tel el Kebir (2).
MINUFIYA: Quweisna (1).
BEHEIRA: Hafs (1).
CAIRO: Abbassia (1); Old Cairo (1).
GIZA: Abu Sir (1); Giza Pyramids (4); Abu Rawash (8); Minshat el Bakkari (1).
FAIYUM: Kom O Shim area (4).
BENI SUEF: Beni Suef (7).
MATRUH: Wadi Natroun (4); El Amiriya (5); Burg el Arab (3); Bahig (2); Sanyet el Agram (2); Mersa Matruh (3); Siwa Oasis (4).

Telescopus dhara obtusus (Reuss)

Coluber obtusus Reuss, 1834, Mus. Senckenb., 1: p. 137—Egypt.

Tarbophis obtusus, Boulenger, 1895, Ann. Mus. Genova, (2), 15: p. 15; 1896, Cat. Sn. Brit. Mus., 3: p. 52; Anderson, 1898, Zool. Egypt, 1: p. 283, pl. 34, fig. 4; Flower, 1933, Proc. Zool. Soc. London, 1933: p. 820.

Tarbophis dhara obtusus, Parker, 1949, Snakes Somaliland Sokotra, Ids., p. 88.

Telescopus dhara obtusus, Marx, 1956, U. S. Navy Medical Res. Unit No. 3, Report NM005 050.39.45: p. 8.

Common name--Egyptian Cat-Snake.

Range--Northern Africa and Arabia.

Specimens collected--20. Map 30.
SOUTHEASTERN DESERT: Gebel Elba, 3.2 km N of Bir Kansisrob (1).
CAIRO: Maadi (1); Boulac (2).
GIZA: Giza Pyramids (3); Zawyet Abu Musallam (1-USNM); Abu Rawash (8); Abu Rawash Pyramid (1); Abu Ghalib (1), El Magadla (1).
MATRUH: Wadi Natroun (1).

FIGURE 9. Holotype of Telescopus hoogstraali. After Schmidt and Marx, 1956: fig. 5.

Telescopus hoogstraali Schmidt and Marx Figure 9.

Telescopus hoogstraali Schmidt and Marx, 1956, Fieldiana, Zool., 39: p. 33, figs. 5-6-Wadi el Sheikh, St. Catherine's Monastery area, Sinai Peninsula.

Common name--Hoogstraal's Cat-Snake (here proposed).

Range--Sinai.

Specimens collected--2. Map 30.
SINAI: St. Catherine's Monastery area (± 5000 ft. alt.), Wadi el Sheikh (2).

ELAPIDAE

Naja haje haje (Linnaeus)

Coluber haja Linnaeus, 1758, Syst. Nat., ed. 10, 1: 225—Lower Egypt.

Naja haje, Boulenger, 1896, Cat. Sn. Brit. Mus., 3: 374; Anderson, 1898, Zool. Egypt, 1: p. 312, pl. 44; Flower, 1933, Proc. Zool. Soc. London, 1933: p. 826.

Naja haje haje, Pitman, 1938, Guide Snakes Uganda, p. 209.

Common name--Egyptian Cobra.

Range: Africa and Arabia.

Specimens collected--19. Map 31.
BEHEIRA: Hafs (3).
CAIRO: Helwan (1).
GIZA: El Mansuriya (2); Birqash (1); Abu Ghalib (2).
FAIYUM: Kom O Shim (1); Minshat Tantawi (1).
BENI SUEF: Beni Suef (2); Biba (1); Bush "El Sabakhaya" (1).
MATRUH: Cairo-Alexandria desert road, 179 km NW of Cairo (1). El Daba (1); Mersa Matruh, 12.8 km E of (1); Sidi Barrani, 19.2 km SE of (1).

Naja nigricollis nigricollis Reinhardt

Naja nigricollis Reinhardt, 1843, Danske vidensk, Selsk. Skrift., Copenhaven, 10: p. 369—Guinea; Boulenger, 1896, Cat. Sn. Brit. Mus., 3: p. 378; Anderson, 1898, Zool. Egypt, 1: p. 322, pl. 45; Flower, 1933, Proc. Zool. Soc. London, 1933: p. 826.

Naja nigricollis nigricollis, Loveridge, 1933, Field Mus. Nat. Hist., Zool. Ser., 22: p. 41.

Common name--Spitting Cobra; Black-necked Cobra.

Range--Africa.

Specimens collected--4. Map 31.
ASYUT: Durunka (1).
QENA: Qena (2); Luxor, 24 km N of (1).

FIGURE 10. Live Walterinnesia aegyptia. Photograph by Robert E. Kuntz. After Marx, 1953: fig. 38.

Walterinnesia aegyptia Lataste Figure 10.

Walterinnesia aegyptia Lataste, 1887, Le Naturaliste, 1887: p. 411—Egypt; Boulenger, 1896, Cat. Sn. Brit. Mus., 3: p. 392; Anderson, 1898, Zool. Egypt, 1: p. 324, pl. 46; Flower, 1933, Proc. Zool. Soc. London, 1933: p. 827; Marx 1953, Fieldiana, Zool., 34: p. 189.

Common name--Innes' Cobra.

Range--northeastern Egypt and southwestern Asia.

Specimens collected--4. Map 31.
SUEZ: Gebel Suez (1).
RED SEA: Wadi Nasuri, ± 32 km E of Cairo (3).

VIPERIDAE

Atractaspis engaddensis Haas

Atractaspis engaddensis Haas, 1950, Copeia, 1950: p. 52—Engaddi Oasis, Israel; Marx, 1952, Copeia, 1952: p. 278.

Common name--Palestinian Mole Viper (here proposed).

Range--Sinai and Israel.

Specimens collected--2. Map 32.
SINAI: Wadi Feiran (± 1500 ft. alt.) (1); Feiran Oasis (± 1500 ft. alt.) (1).

Cerastes cerastes (Linnaeus)

Coluber cerastes Linnaeus, 1758, Syst. Nat., ed. 10, 1: p. 217—Oriente.

Cerastes cornutus, Boulenger, 1896, Cat. Sn. Brit. Mus., 3: p. 502; Anderson, 1898, Zool. Egypt, 1: p. 330, pl. 48.

Cerastes cerastes, Anderson, 1899, Bihang. svenska Vet.-Akad. Handl., Stockholm (4), 24: p. 29; Flower, 1933, Proc. Zool. Soc. London, 1933: p. 830.

Common name--Greater Cerastes Viper; Horned Viper.

Range--North Africa and southwestern Asia.

Specimens collected--53. Maps 33, 33A.
SUEZ: Wadi Doum (1); Wadi Doum, 25 km S of Ain Sukhna (4); Wadi Iseili tributary, 24 km E of Kutamiya Observatory (7); Wadi Gindali (2); Wadi Nasuri, ± 32 km E of Cairo (1); Cairo-Suez road, 28.8 km E of Cairo (1); Wadi Naam (1); Wadi Digla, 1.6 km E of Maadi (2); Wadi Hof, 5.5 km NE of Helwan (3); Wadi Qiscib (1); 1 km N of Abu El Darg Lighthouse (1).
RED SEA: Wadi el Bir, near Abu Darag lighthouse (1); Ras Zafarana, Wadi Araba (1); Bir Zafarana (1); Wadi Abu Qaraiya (1); Wadi Fatiri area, E of Abu Kharif (1); Wadi Abu Shih (2); Wadi Abu Shih, 96 km E of Qena (4).
SOUTHEASTERN DESERT: Wadi Aideib, 3.2 and 4 km N of Bir Kansisrob (2); Gebel Elba, 3.2 km N of Bir Kansisrob (3).
CAIRO: Wadi Garawi, 16 km SE of Helwan (1).
GIZA: Abu Ghalib (1).
ASYUT: Wadi Asyuti (2).
QENA: Wadi Nassim (2).
ASWAN: Aswan, 1.6 km SE of (1); Khor el Allaqi (2); west bank of Nile River (1).
MATRUH: El Amiriya (1); Salum, 60 km S of (2).

Cerastes vipera (Linnaeus)

Coluber vipera Linnaeus, 1758, Syst. Nat., ed. 10, 1: p. 216—Egypt.

Cerastes vipera, Boulenger, 1891, Trans. Zool. Soc. London, 13: p. 155; 1896, Cat. Sn. Brit. Mus., 3: p. 503; Anderson, 1898, Zool. Egypt, 1: p. 327, pl. 47; Flower, 1933, Proc. Zool. Soc. London, 1933: p. 832.

Common name--Lesser Cerastes Viper.

Range--North Africa to Arabia.

Specimens collected--48. Maps 33, 33A.
SUEZ. Wadi Iseili, tributary 24 km E of Kutamiya Observatory (1).
BEHEIRA: El Khataba (1).
GIZA: Zawyet Abu Musallam (6); Abu Rawash (1); El Mansuriya (11); El Qatta (1); Abu Ghalib (1); Beni Yusef(1).
FAIYUM: Kom O Shim (2); Wadi Muweliih (14).
MINYA: El Bahnasa (4).
MATRUH: Wadi Natroun, 5 km W of (1); El Maghra Oasis (1); Mersa Matruh (1); Sidi Barrani, 40 km W of (1); Siwa Oasis (1).

Echis carinatus (Schneider)

Pseudoboa carinata Schneider, 1801, Hist. Amph., 2: p. 285—Arni (bei Madras Indien 'fide Klemmer, 1936: p. 376).

Echis carinata, Wagler, 1830, Syst. Amph., p. 177; Boulenger, 1896, Cat. Sn. Brit. Mus., 3: p. 504 (ending "us"); Anderson, 1898, Zool. Egypt, 1: p. 336, pl. 49 (ending "us"); Flower, 1933, Proc. Zool. Soc. London, 1933: p. 834.

Common name--Saw-scaled Viper; Carpet Viper.

Range--Throughout Africa from north of the Equator, continuing throughout southern Asia into India and Ceylon.

Specimens collected--19. Map 34.
SUEZ: Maadi, 4.8 km E of (1).
SOUTHEASTERN DESERT: Wadi Aideib, 4 km N of Bir Kansisrob (1); Gebel Elba, 3.2 km N of Bir Kansisrob (3).
MATRUH: Siwa Oasis (14).

Echis coloratus Günther

Echis colorata Günther, 1878, Proc. Zool. Soc. London, 1878: p. 978—Jebel Sharr, Midian, Arabia; Boulenger, 1896, Cat. Sn. Brit. Mus., 3: p. 507; Flower, 1933, Proc. Zool. Soc. London, 1933: p. 835.

Common name--Burton's Carpet-Viper.

Range--Arabia, Egypt, and Sokotra.

Specimens collected--8. Map 34.
SINAI: Feiran Oasis (+ 1500 ft. alt.) (2); St. Catherine's Monastery area (+ 5000 ft alt.): Wadi el Sheikh (1), Raba (1).
SUEZ: Wadi Gindali (1).
RED SEA: Sukkari mine (1); Wadi Fatiri area, Abu Kharif mine (1).
CAIRO: Helwan, Wadi Hof (1).

Vipera persica fieldi (Schmidt) Figure 11.

Pseudocerastes fieldi Schmidt, 1930, Field Mus. Nat. Hist., Zool. Ser. 17: p. 227—Bair Wells, Jordan; Flower, 1933, Proc. Zool. Soc. London, 1933: p. 830.

Vipera persica fieldi, Marx and Rabb, 1965, Fieldiana, Zool., 44: p. 174.

Common name--Field's Horned-viper.

Material examined--1 (Giza Museum 7152; collected by S. S. Flower, 15 October, 1918). Map 32.

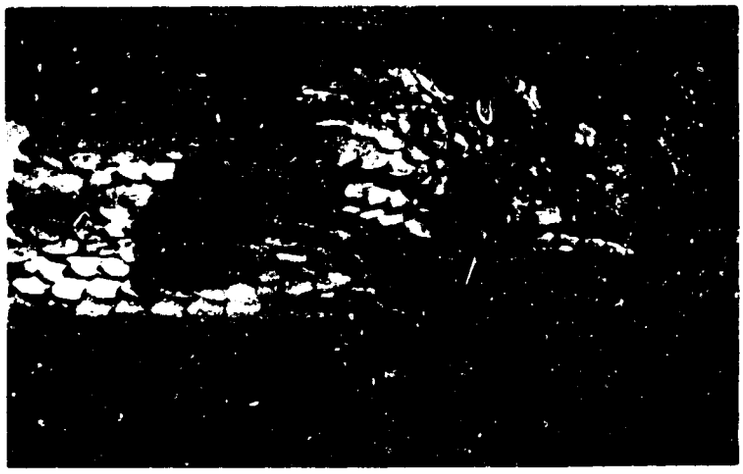

FIGURE 11. Vipera persica persica from Iran - Paris Museum 57-66. After Marx and Rabb, 1965: fig. 35 B

Range--Sinai and extreme southwestern Asia.
Flower (1930) records a specimen from "White Ridges", 9 miles south of Hassana and about 29 miles north of Nakhl, central Sinai. I wish to thank Mr. Ezzat Guindy of NAMRU-3 for his kindness in searching for and sending me this specimen. This snake is in a very dry condition, but fortunately all of the diagnostic features of this species can be seen (Marx and Rabb, 1965).

Order CROCODYLIA

CROCODYLIDAE

Crocodylus niloticus Laurenti

Crocodylus niloticus Laurenti (part), 1768, Synops. Rept., p. 53—India and Egypt; Boulenger, 1889, Cat. Chil. Rhyn. Croc. Brit. Mus., p. 283; Anderson, 1898, Zool. Egypt, 1: p. 10, pl. 1; Flower, 1933, Proc. Zool. Soc. London, 1933: p. 755; Wermuth, 1961, Schildk. Krok. Bruck.; p. 364.

Common name--Nile Crocodile.

Range--southwest Asia, Africa, Madagascar, Comoros and Seychelles.

Order TESTUDINATA

Key to the Species of Turtles

1. Dorsal shell with shields or plates 3
   Dorsal shell soft or leathery, without plates 2

2. Snout pointed, snorkel-like . . . . . Trionyx triunguis (p. 45)
   Snout rounded and blunt . . . . . Dermochelys coriacea (p. 45)

3. Dorsal plates overlapping (imbricate) . . . . Eretomochelys imbricata (p. 45)
   Dorsal plates not overlapping 4

4. Limbs elephantine, terrestrially adapted . . . . . Testudo kleinmanni (p. 44)
Limbs as aquatic flippers 5

5. Four costal shields (shields between middorsal shields and lateral shields) . . Chelonia mydas (p. 44)
More than four costal shields . . . . . Caretta caretta (p. 44)

TESTUDINIDAE

Testudo kleinmanni Lortet

Testudo kleinmanni Lortet, 1883, Arch. Mus. Hist. Nat. Lyon, 3: p. 188—Lower Egypt and environs of Alexandria, Egypt; Loveridge and Williams, 1957, Bull. Mus. Comp. Zool., 115: p. 276.

Testudo leithii (non Carter, 1852), Boulenger, 1889, Cat. Chel. Rhynch Croc. Brit. Mus., p. 175; Anderson, 1898, Zool. Egypt, 1: p. 28, pl. 2; Flower, 1933, Proc. Zool. Soc. London, 1933: p. 745.

Common name--Egyptian Tortoise; Leith's Tortoise.

Range--Western Cyrenaica to Sinai.

Specimens collected--13. Map 35.
SUEZ: Bir Gindali, (1).
MATRUH: El Daba (1); Sidi Barrani, 1.6 km S of (2); Salum (9).

CHELONIIDAE

Caretta caretta (Linnaeus)

Testudo caretta Linnaeus, 1758, Syst. Nat., ed. 10, 1: p. 197—Islands off America.

Thalassochelys caretta, Boulenger (part), 1889, Cat. Chel. Rhyn. Croc. Brit. Mus., p. 491.

Caretta caretta, Siebenrock, 1909, Synop. Schildk., 10: p. 549; Flower, 1933, Proc. Zool. Soc. London, 1933: p. 751; Loveridge and Williams, 1957, Bull. Mus. Comp. Zool., 115: p. 751.

Common name--Red-brown Loggerhead; Loggerhead Turtle.

Range--African coasts, Indian, Mediterranean, Atlantic Oceans.

Specimens collected--1. Map 35.
KAFR EL SHEIKH: Baltim (1).

Chelonia mydas (Linnaeus)

Testudo mydas Linnaeus, 1758, Syst. Nat., ed. 10, 1: p. 197—Ascension Island.

Chelonia mydas, Sowerby and Lear, 1872, Tort. Terrap. Turtles, pls. 59-60; Flower, 1933, Proc. Zool. Soc. London, 1933: p. 750: Loveridge and Williams, 1957, Bull. Mus. Comp. Zool., 115: p. 474.

Chelone mydas, Boulenger, 1889, Cat. Chel. Rhyn. Croc. Brit. Mus., p. 180.

Common name--Green Turtle; Edible Turtle.

Range--All African coasts, Indian and Atlantic Oceans.

Specimens examined--egg and hatchlings. Map 35.
RED SEA: Giftun el Kebir Island.

Eretmochelys imbricata (Linnaeus)

Testudo imbricata Linnaeus, 1766, Syst. Nat., ed. 12, 1: p. 350—American and Asiatic Seas.

Chelone imbricata, Boulenger, 1889, Cat. Chel. Rhyn. Croc. Brit. Mus., p. 183.

Eretmochelys imbricata, Flower, 1929, List., Vert. Anim. Garden Zool. Soc. London, 1828-1929, 3: p. 39; 1933, Proc. Zool. Soc. London, 1933: p. 750; Loveridge and Williams, 1957, Bull. Mus. Comp. Zool., 115: p. 485.

Common name--Hawksbill Turtle.

Range--east, south, and west coasts of Africa, Indian, and Atlantic Oceans.

Specimens collected--2. Map 35.
RED SEA: Hurghada (2).

DERMOCHELYIDAE

Dermochelys coriacea (Linnaeus)

Testudo coriacea Linnaeus, 1766, Syst. Nat., ed. 12, 1: p. 350—Mediterranean Sea.

Dermochelys coriacea, Boulenger, 1889, Cat. Chel. Rhyn. Croc. Brit. Mus., p. 10; Flower, 1933, Proc. Zool. Soc. London, 1933: p. 752; Loveridge and Williams, 1957, Bull. Mus. Comp. Zool., 115: p. 499.

Common name--Leatherback; Leathery Turtle.

Range--African coasts, Indian, Mediterranean, and Atlantic Oceans.
The only record of this species from Egypt is a specimen from the Alexandria market (Flower, 1933: p. 752).

TRIONYCHIDAE

Trionyx triunguis (Forskål)

Testudo triunguis Forskal, 1775, Descr. Anim., p. 9—Nile River.

Trionyx triunguis, Peters, 1875, Monatsb. Akad. Wiss. Berlin, p. 196; Boulenger, 1889, Cat. Chel. Rhyn. Croc. Brit. Mus., p. 254; Anderson, 1898, Zool. Egypt, 1: p. 32, pl. 3; Flower, 1933, Proc. Zool. Soc. London, 1933: p. 753; Loveridge and Williams, 1957, Bull. Mus. Comp. Zool., 115: p. 423.

Common name--Nile Soft-shelled Turtle; Soft-shelled River-Turtle.

Range--Egypt south to Lake Rudolf, southwest to Angola and northwest to Senegal.

AMPHIBIA

Order SALIENTIA

Key to the species of frogs and toads.

1. Back warty, toads (Bufo) 3
   Back not warty, frogs (Rana) 2

2. Outer metatarsal tubercle present; in life: 8 to 10 longitudinal ridges of skin on back . . . . . Rana m. mascareniensis (p. 47)
   Outer metatarsal tubercle absent; in life: one pair of longitudinal ridges of skin on back . . . . . Rana ridibunda (p. 47)

3. Back with interrupted dark longitudinal bands . . . . Bufo vittatus (p. 47)
   Back with dark spots 4

4. Dark spots on back smaller than tympanum . . . . . Bufo dodsoni (p. 46)
   Dark spots on back larger than tympanum 5

5. A long, continuous gland behind angle of mouth and beginning below tympanum . . . . . Bufo r. regularis (p. 46)
   Small round warts behind angle of mouth . . . . . Bufo v. viridis (p. 47)

BUFONIDAE

Bufo dodsoni Boulenger

Bufo dodsoni Boulenger, 1895, Proc. Zool. Soc. London, 1895: p. 540, pl. 30. fig. 5—Rassa Alla, Ethiopia.

Common name--Dodson's Toad.

Range--southeastern Egypt to Somalilands.

Specimens collected--5. Map 36.
SOUTHEASTERN DESERT: Gebel Elba (5).

Bufo regularis regularis Reuss

Bufo regularis Reuss, 1834, Mus. Senckenberg., 1: p. 80—Egypt; Anderson, 1898, Zool. Egypt, 1: p. 353, pl. 50, fig. 3: Flower, 1933, Proc. Zool. London, 1933: p. 841.

Bufo regularis regularis, Loveridge, 1936, Field Mus. Nat. Hist., Zool. Ser., 22: p. 80.

Common name--Egyptian Square-marked Toad; Reuss's Toad.

Range--All of Africa except the northwest.

Specimens collected--209. Map 36.
SUEZ: Cairo, 24 km E of (2)
DAMIETTA: Fariskur (3); Kafr el Battikh (7).
SHARQIYA: Tel Basta (2); Abu Suweir (4).
QALUBIYA: Kafr Farouk (3); Kafr Abu Sir (1).
KAFR EL SHEIKH: Baltim (2); El Burg (41).
GHARBIYA: Shirbin (3).
BEHEIRA: Kafr Dawud (10).
CAIRO: Abbassia (7); Maadi (3).
GIZA: Mit Rihcina (4); near Giza Pyramid (2); E arrariya (9); Zawyet Abu Musallam (10); Abu Rawash (12); Kom Bira (1); El Mansuriya (31); Birqash (7); El Qatta (2); Minshat el Bakkari (4).
MINYA: El Qeis (16).
QENA: Luxor (1).
MATRUH: Burg el Arab, 16 km W of (1); Salum (1); Bir El Shaqqa (1).

Bufo viridis viridis Laurenti

Bufo viridis Laurenti, 1768, Synops. Rept., 27: pl. 1, fig. 1—Vienna.

Bufo viridis viridis, Mertens, 1926, Senckenb., 8: p. 258.

Common name--Green Toad.

Range--Europe, North Africa westward to Mongolia and Tibet.

Specimens collected--175. Map 36.
ISMAILIA: El Qantara (1).
SUEZ: Wadi Iseili tributary, 24 km E of Kutamiya Observatory (7).
SHARQIYA: Kafr Esbet Dawud (1).
GHARBIYA: Shirbin (1).
CAIRO: city (1); Maadi (1).
FAIYUM: El Masara (9).
QENA: Wadi Nassim (1).
MATRUH: Wadi Natroun (18); El Amiriya (6); Ikingi Mariut (2); Bahig (1); Burg el Arab (31); Burg el Arab, 8 km W of (15); El Maghra Oasis (1). Mersa Matruh (38), 4 km NE of (3), 1.6 km E of (3), 1 km W of (3), 56 km W of (1). Salum, 4.8 km E of (2); Siwa Oasis (28).

Bufo vittatus Boulenger

Bufo vittatus Boulenger, 1906, Proc. Zool. Soc. London, 1906: p. 573, fig. 98—Entebbe, Uganda; Flower, 1933, Proc. Zool. Soc. London, 1933: p. 842.

Common name--Degen's Toad.

Range--Western Tanganyika, Uganda and Lower Egypt.

RANIDAE

Rana mascareniensis mascareniensis Duméril and Bibron

Rana mascareniensis Duméril and Bibron, 1841, Erp. Gén., 8: p. 350—Madagascar, Mauritius, Seychelles; Anderson, 1898, Zool. Egypt, 1: p. 346, pl. 50, fig. 1; Flower, 1933, Proc. Zool. Soc. London, 1933: p. 845.

Rana mascareniensis mascareniensis, Loveridge, 1936, Field Mus. Nat. Hist., Zool. Ser., 22: p. 92.

Common name--Mascarene Frog; Common Mascarene Frog.

Range--Africa.

Specimens collected--64. Map 37.
DAMIETTA: Fariskur (11).
GIZA: Saft el Laban (1); Ausim (19); Tanash (26); El Mansuriya (7).

Rana ridibunda Pallas

Rana ridibunda Pallas, 1771, Reise versch. Prov. russ. Reich., 1: p. 458—Gurjew, north shore of the Caspian Sea (restricted by Mertens and Muller, 1928).

Rana esculenta Linnaeus, Flower, 1933, Proc. Zool. Soc. London, 1933: p. 844.

Common name--Lake Frog.

Range--North Africa, central and southern Europe into West Asia.

Specimens collected--24, Map 37.

CAIRO: Abbassia (2).

GIZA: Kafr Hakim (19); Ausim (3).

Flower (1933) rejected the Egyptian locality of this species. I am not aware of any subsequent reference to this species in Egypt.

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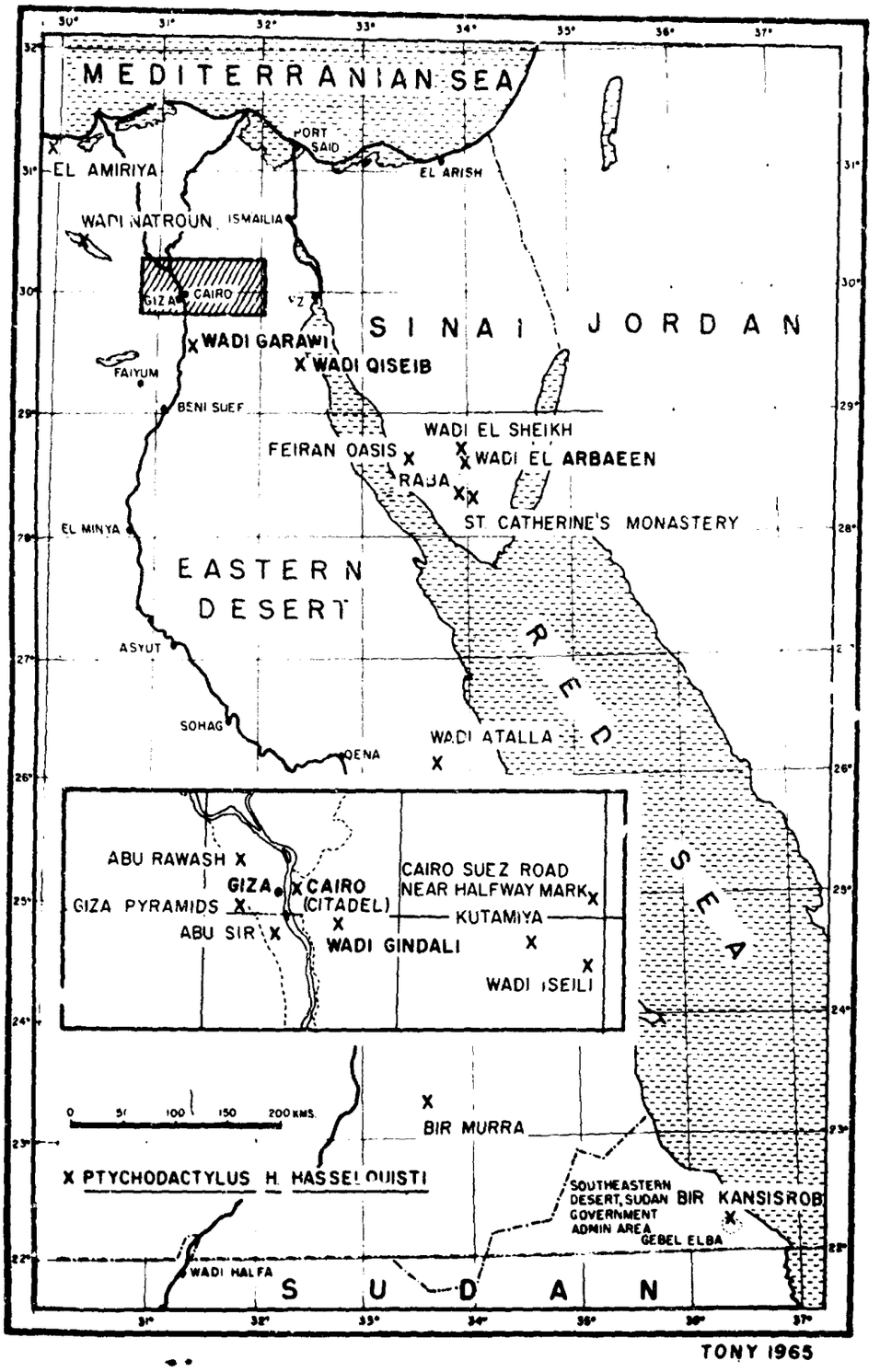
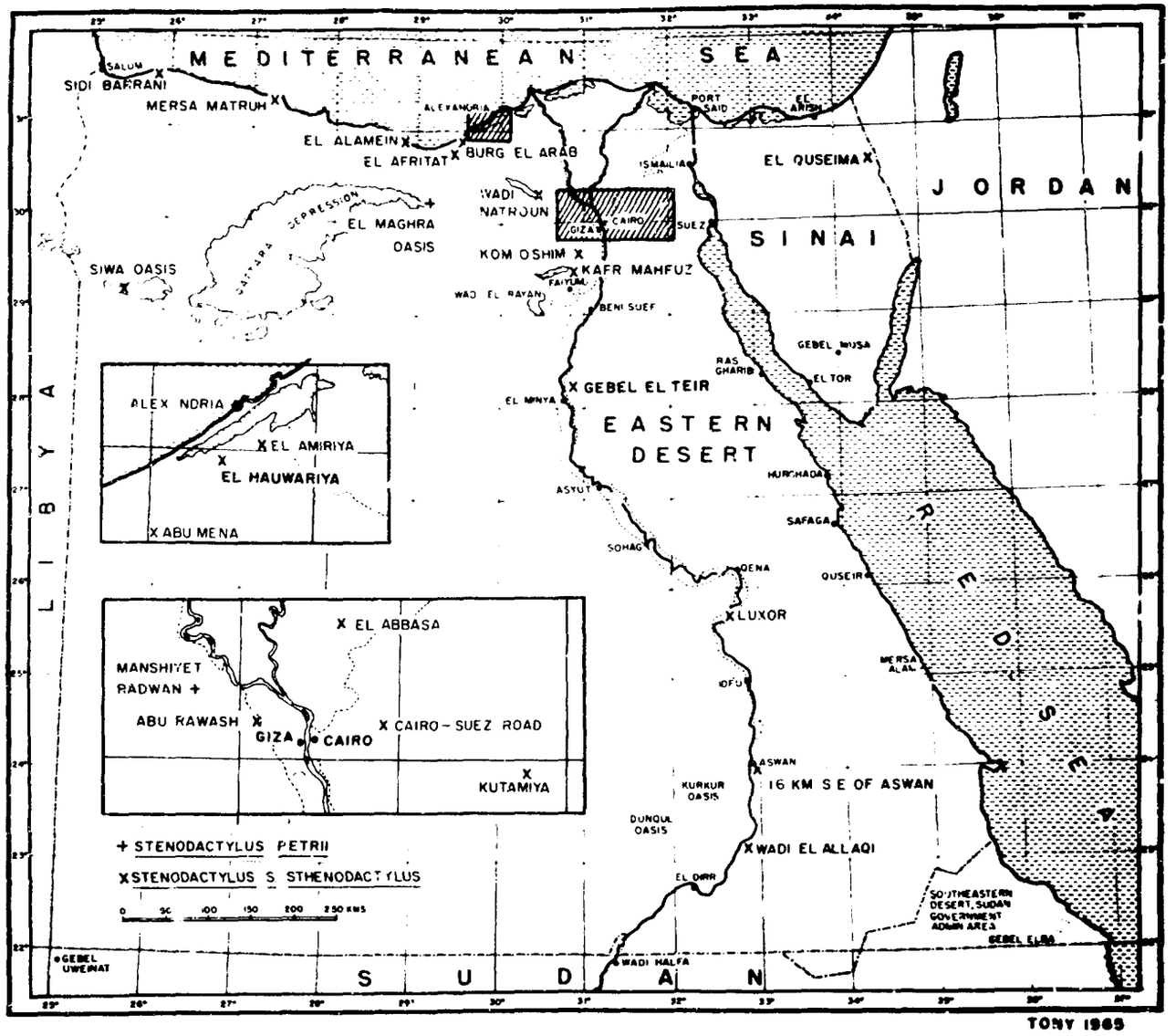
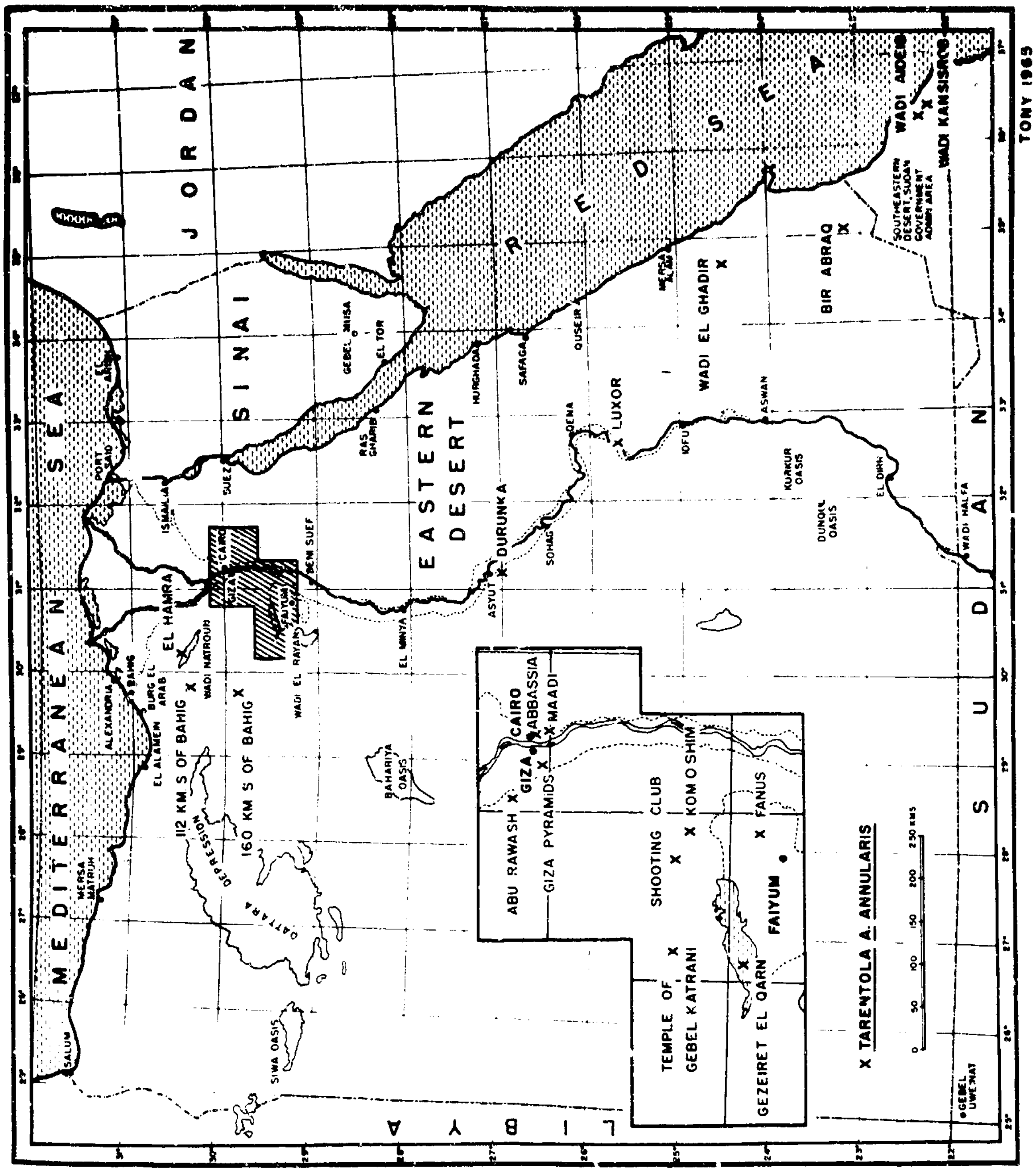

MEDITERRANIAN SEA
PORT SAID
EL AMIRIYA
EL ARISH
WADI NATROUN
ISMAILIA
GIZA
CAIRO
SINAI
JORDAN
WADI GARAWI
WADI QISEIB
FAIYUM
BENI SUEF
WADI EL SHEIKH
FEIRAN OASIS
WADI EL ARBAEEN
RAHA
ST CATHERINE'S MONASTERY
EL MINYA
EASTERN DESERT
ASYUT
SOHAG
QENA
WADI ATALLA
RED SEA
ABU RAWASH
GIZA
CAIRO (CITADEL)
GIZA PYRAMIDS
ABU SIR
WADI GINDALI
CAIRO SUEZ ROAD
NEAR HALFWAY MARK
KUTAMIYA
WADI ISEILI
0 50 100 150 200 KMS.
BIR MURRA
PTYCHODACTYLUS H. HASSELQUISTI
SOUTHEASTERN DESERT, SUDAN GOVERNMENT ADMIN AREA
BIR KANSISROB
GEBEL ELBA
WADI HALFA
SUDAN
TONY 1965

MAP 2

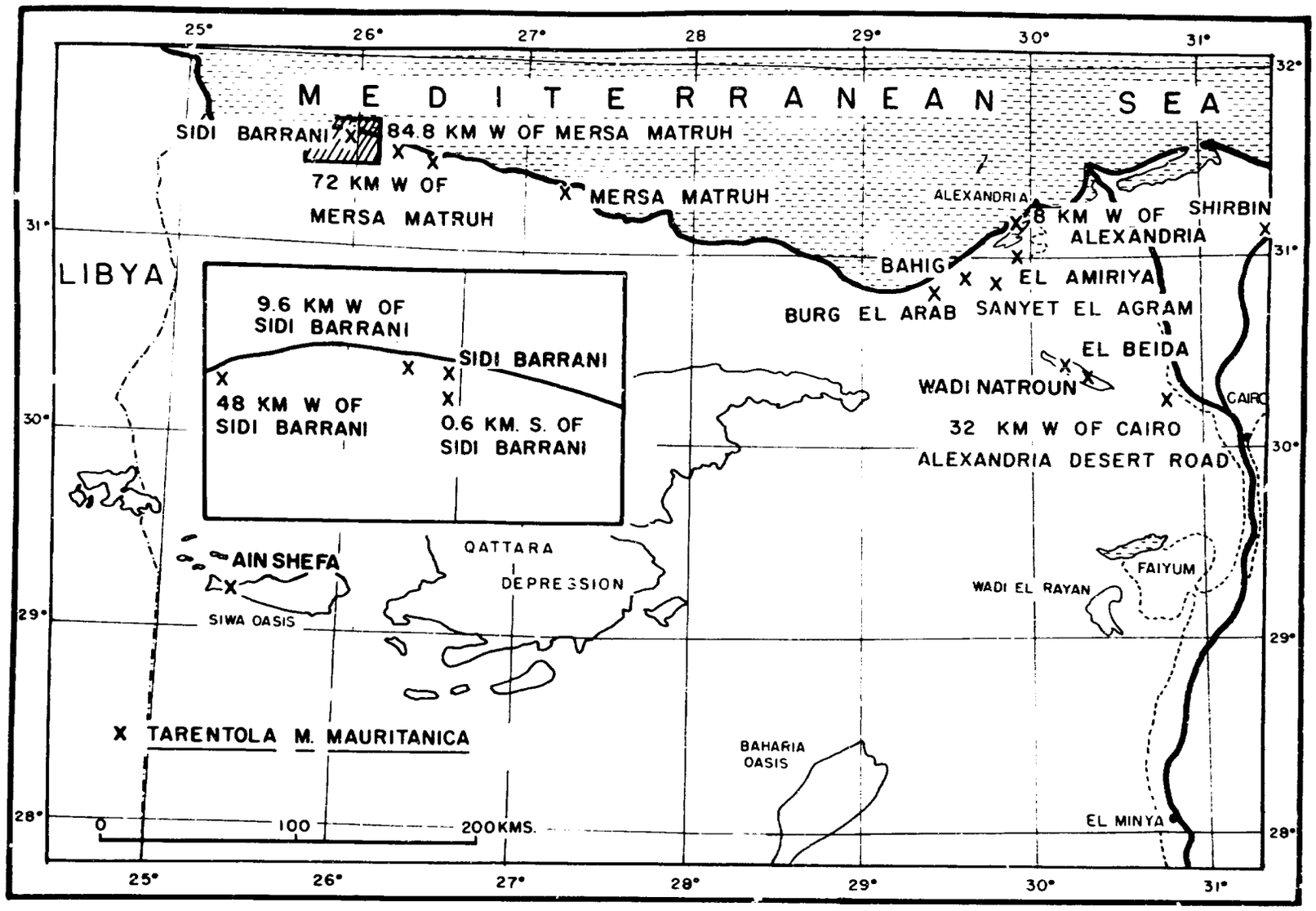

MEDITERRANEAN SEA
SALUM
SIDI BARRANI
MERSA MATRUH
EL ALAMEIN
EL AFRITAT
BURG EL ARAB
ALEXANDRIA
PORT SAID
EL ARISH
ISMAILIA
EL QUSEIMA
JORDAN
SINAI
WADI NATROUN
CAIRO
GIZA
SUEZ
EL MAGHRA OASIS
QATTARA DEPRESSION
SIWA OASIS
KOM OSHIM
KAFR MAHFUZ
FAIYUM
WAD EL RAYAN
BENI SUEF
GEBEL MUSA
RAS GHARIB
EL TOR
GEBEL EL TEIR
EL MINYA
EASTERN DESERT
HURGHADA
ASYUT
SAFAGA
SOHAG
QENA
QUSEIR
LUXOR
RED SEA
MERSA ALAM
IDFU
ASWAN
16 KM S E OF ASWAN
KURKUR OASIS
DUNQUL OASIS
WADI EL ALLAQI
EL DIBB
SOUTHEASTERN DESERT, SUDAN GOVERNMENT ADMIN AREA
GEBEL ELBA
WADI HALFA
GEBEL UWEINAT
LIBYA
SUDAN
ALEX NDRIA
EL AMIRIYA
EL HAUWARIYA
ABU MENA
EL ABBASA
MANSHIYET RADWAN
ABU RAWASH
GIZA
CAIRO
CAIRO - SUEZ ROAD
KUTAMIYA
+ STENODACTYLUS PETRII
X STENODACTYLUS S STHENODACTYLUS
0 50 100 150 200 250 KMS
TONY 1965

MAP 3

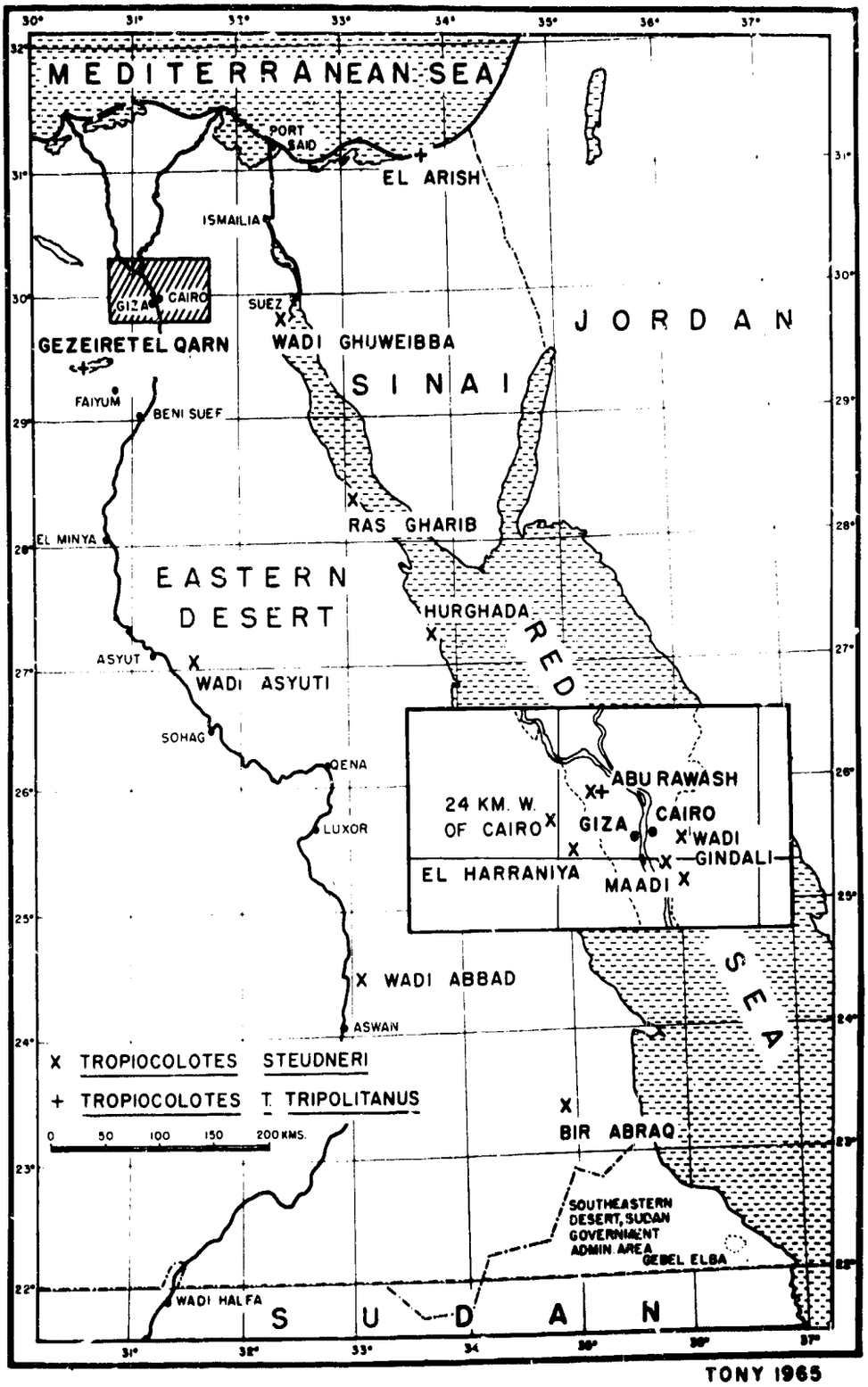

MEDITERRANEAN SEA
JORDAN
SINAI
RED SEA
EASTERN DESERT
LIBYA
SUDAN
EL HAMRA
112 KMS OF BAHIG
160 KMS OF BAHIG
WADI NATROUN
QATTARA DEPRESSION
SIWA OASIS
BAHARIYA OASIS
ALEXANDRIA
MERSA MATRUH
EL ALAMEIN
BURG EL ARAB
PORT SAID
ISMAILIA
SUEZ
BENI SUEF
WADI EL RAYAN
EL MINYA
ASYUT
DURUNKA
SOHAG
QENA
LUXOR
IDFU
ASWAN
KURKUR OASIS
DUNQUL OASIS
EL DIRR
WADI HALFA
GEBEL UWEINAT
RAS GHARIB
HURGHADA
SAFAGA
QUSEIR
EL TOR
GEBEL MUSA
WADI EL GHADIR
BIR ABRAQ
WADI ADEIB
WADI KANSISROB
SOUTHEASTERN DESERT, SUDAN GOVERNMENT ADMIN AREA
ABU RAWASH
GIZA
CAIRO
ABBASSIA
MAADI
GIZA PYRAMIDS
SHOOTING CLUB
KOM OSHIM
FANUS
FAIYUM
TEMPLE OF GEBEL KATRANI
GEZEIRET EL QARN
X TARENTOLA A. ANNULARIS
0 50 100 150 200 250 KMS
TONY 1965

MAP 4

MAP 3



TONY 1965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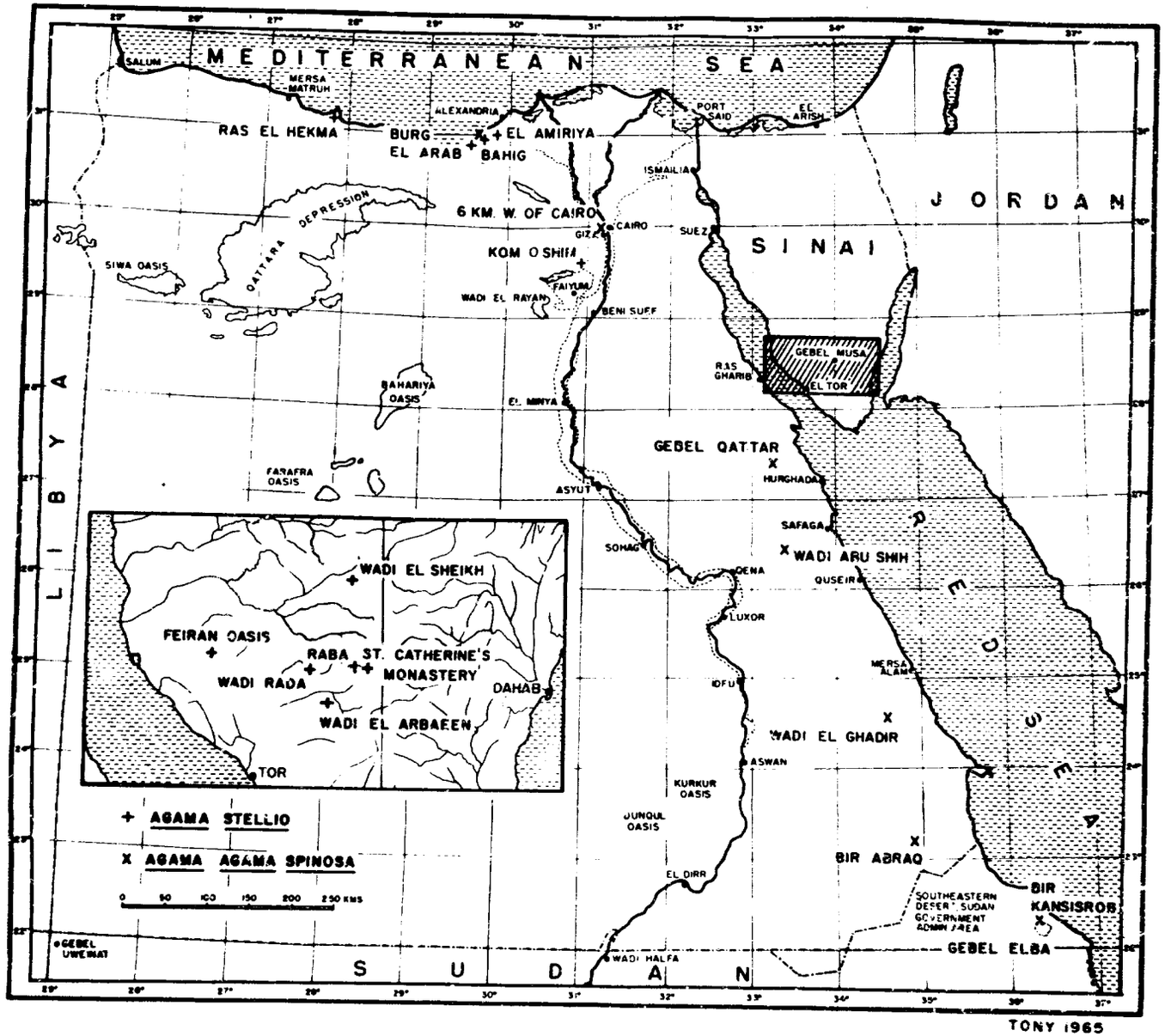
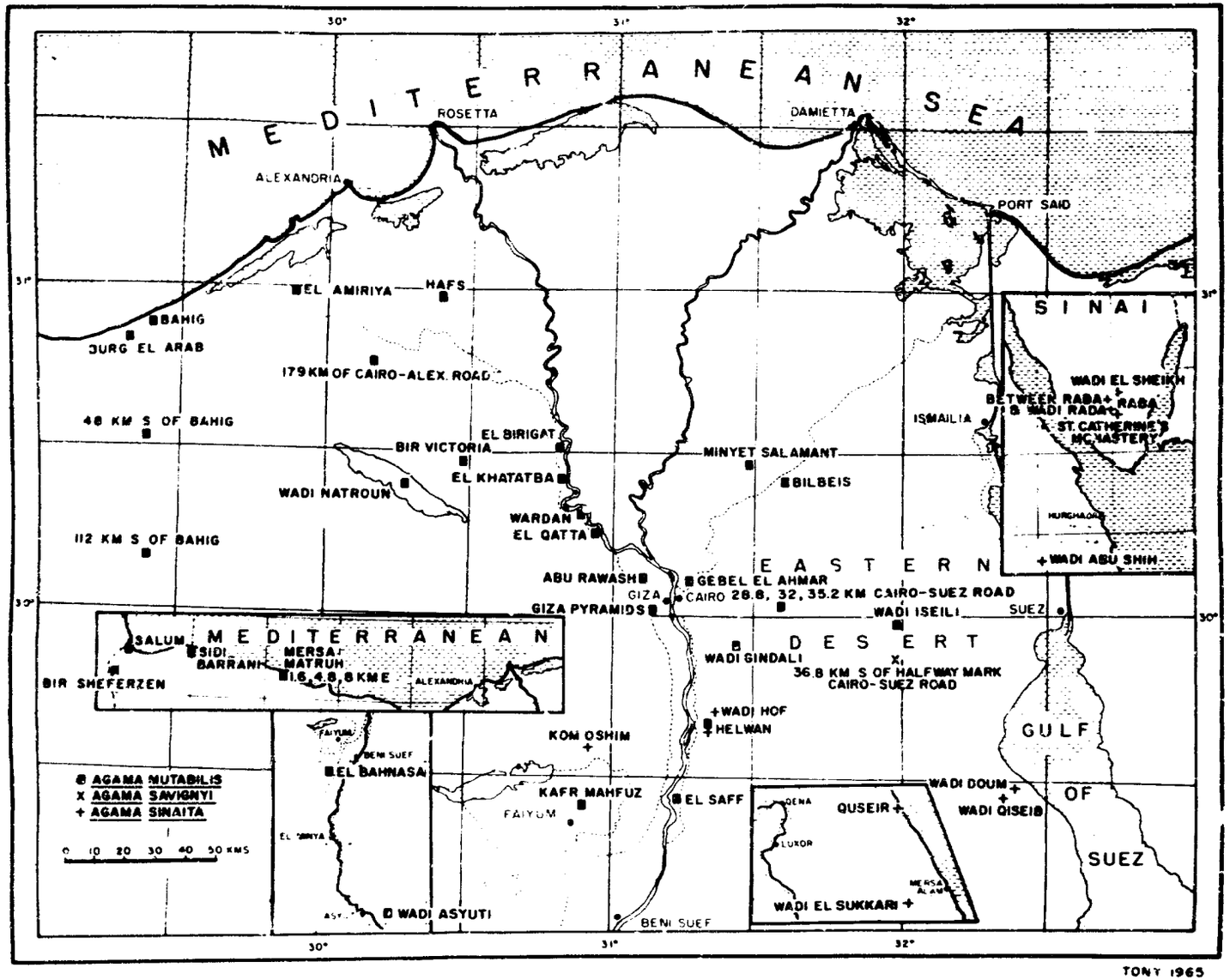
PORT SAID
EL ARISH
ISMAILIA
GIZA
CAIRO
SUEZ
GEZEIRET EL QARN
WADI GHUWEIBBA
SINAI
JORDAN
FAIYUM
BENI SUEF
RAS GHARIB
EL MINYA
EASTERN DESERT
HURGHADA
RED SEA
ASYUT
WADI ASYUTI
SOHAG
QENA
LUXOR
24 KM. W. OF CAIRO
ABU RAWASH
GIZA
CAIRO
WADI GINDALI
EL HARRANIYA
MAADI
WADI ABBAD
ASWAN
X TROPIOCOLOTES STEUDNERI
+ TROPIOCOLOTES T. TRIPOLITANUS
0 50 100 150 200 KMS.
BIR ABRAQ
SOUTHEASTERN DESERT, SUDAN GOVERNMENT ADMIN. AREA
GEBEL ELBA
WADI HALFA
SUDAN
TONY 1965

MAP 6

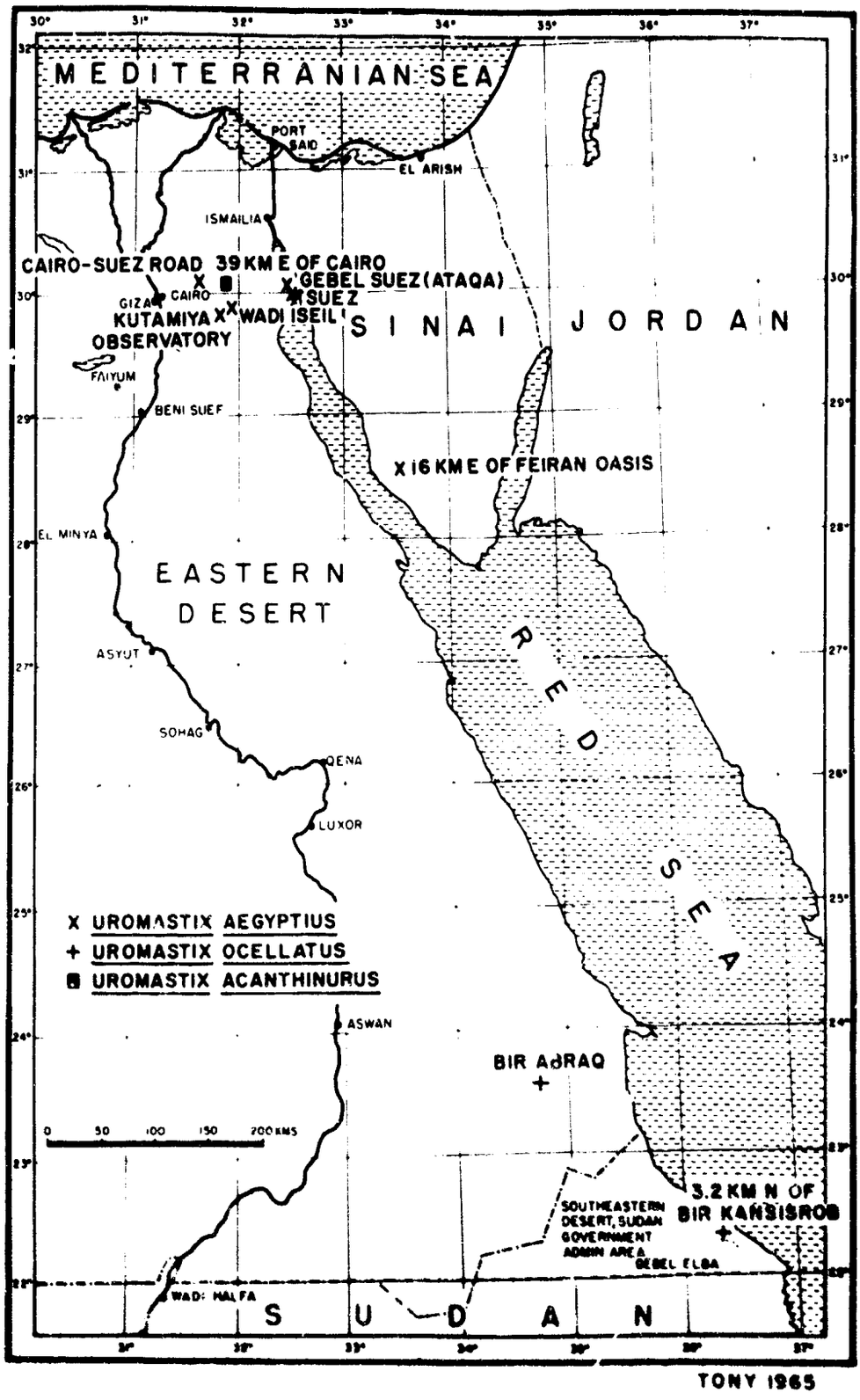

MEDITERRANEAN SEA
SALUM
MERSA MATRUH
ALEXANDRIA
PORT SAID
EL ARISH
RAS EL HEKMA
BURG EL ARAB
EL AMIRIYA
BAHIG
ISMAILIA
JORDAN
6 KM. W. OF CAIRO
CAIRO
GIZA
SUEZ
SINAI
DEPRESSION
QATTARA
SIWA OASIS
KOM O SHIM
FAIYUM
WADI EL RAYAN
BENI SUEF
GEBEL MUSA
EL TOR
RAS GHARIB
BAHARIYA OASIS
EL MINYA
GEBEL QATTAR
HURGHADA
FARAFRA OASIS
ASYUT
SAFAGA
SOHAG
WADI ARU SHIH
QENA
QUSEIR
LUXOR
LIBYA
RED SEA
WADI EL SHEIKH
FEIRAN OASIS
RABA ST. CATHERINE'S MONASTERY
WADI RADA
DAHAB
WADI EL ARBAEEN
TOR
IDFU
MERSA ALAM
WADI EL GHADIR
ASWAN
KURKUR OASIS
DUNQUL OASIS
EL DIRR
BIR ABRAQ
SOUTHEASTERN DESERT SUDAN GOVERNMENT ADMIN AREA
BIR KANSISROB
GEBEL ELBA
GEBEL UWEINAT
WADI HALFA
SUDAN
+ AGAMA STELLIO
X AGAMA AGAMA SPINOSA
0 50 100 150 200 250 KMS
TONY 1965

MAP 7

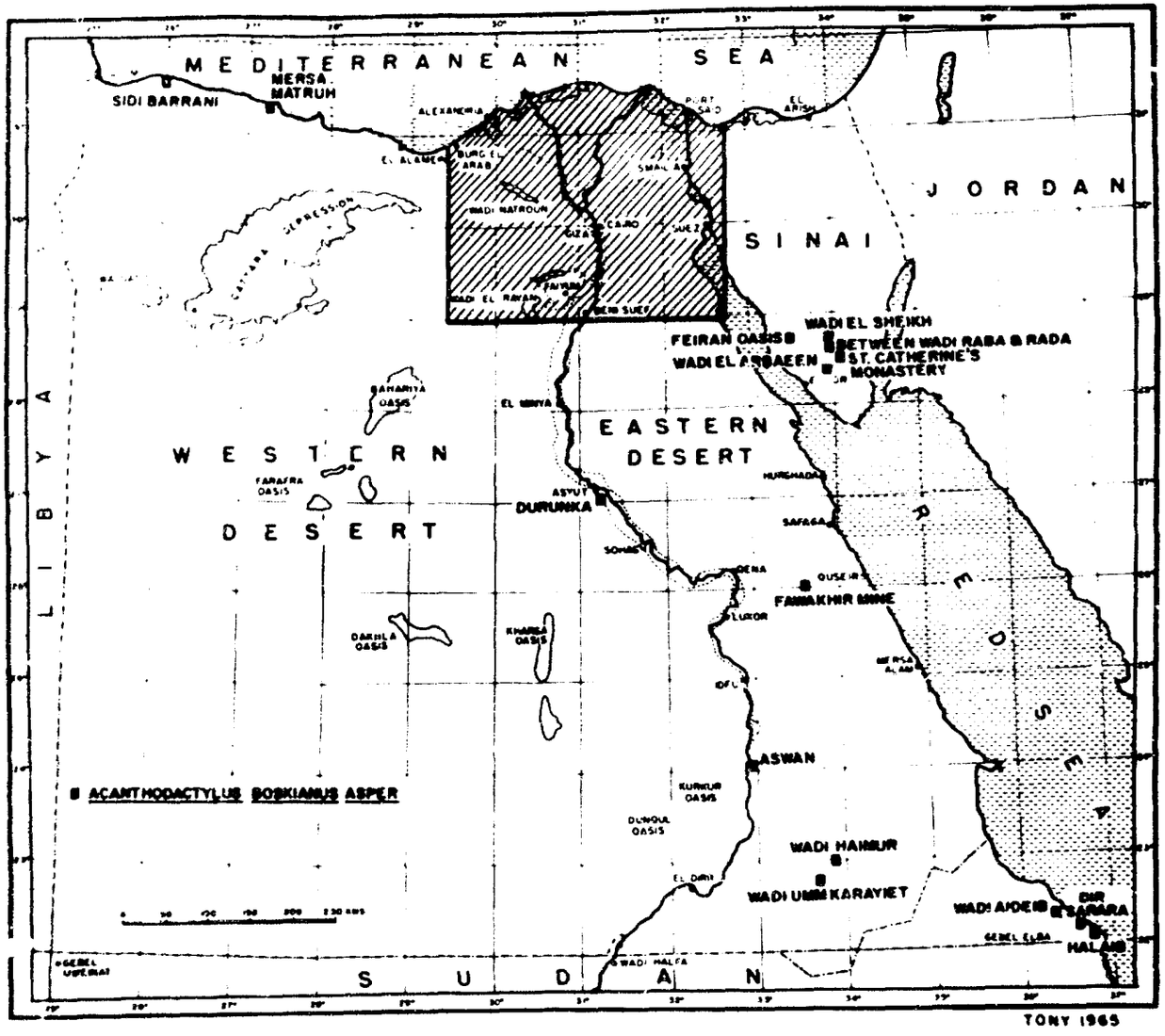
MAP 8

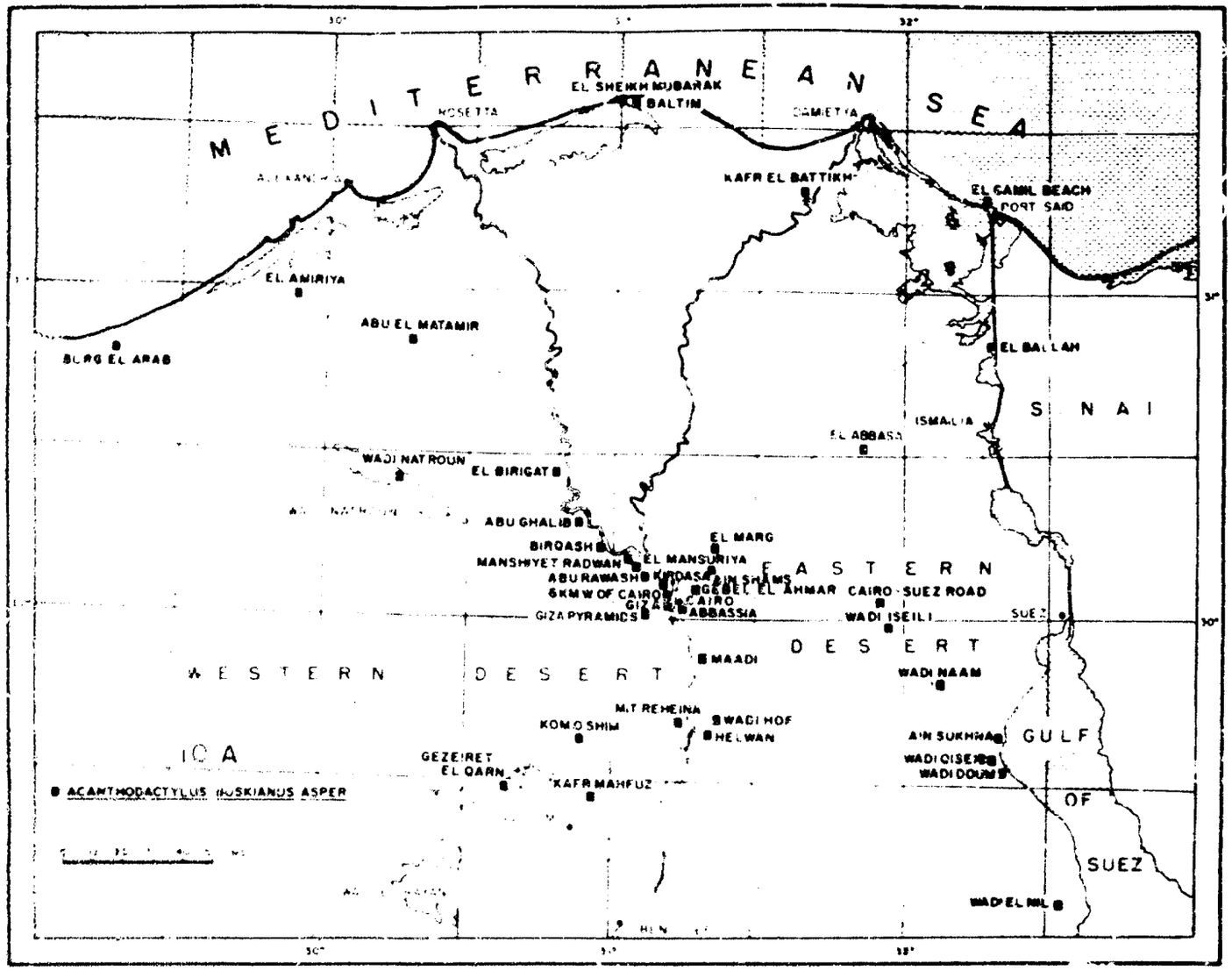


TONY 1965

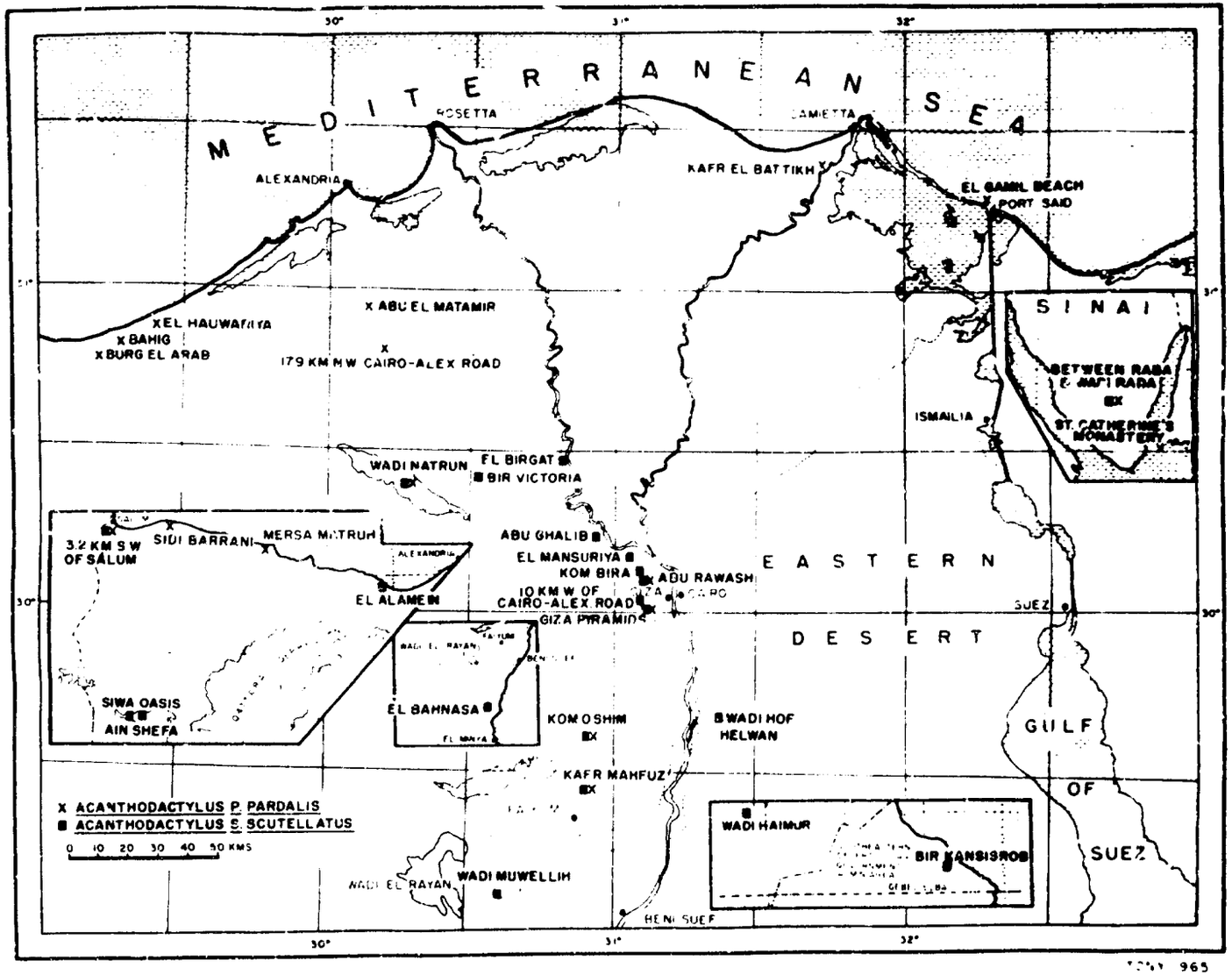

MEDITERRANIAN SEA
PORT SAID
EL ARISH
ISMAILIA
CAIRO-SUEZ ROAD 39 KM E OF CAIRO
GEBEL SUEZ (ATAQA)
GIZA
CAIRO
SUEZ
KUTAMIYA
WADI ISEIL
OBSERVATORY
SINAI
JORDAN
FAIYUM
BENI SUEF
16 KM E OF FEIRAN OASIS
EL MINYA
EASTERN
DESERT
RED SEA
ASYUT
SOHAG
QENA
LUXOR
X UROMASTIX AEGYPTUS
+ UROMASTIX OCELLATUS
UROMASTIX ACANTHINURUS
ASWAN
BIR ADRAQ
0 50 100 150 200 KMS
3.2 KM N OF
BIR KANSISROB
SOUTHEASTERN
DESERT, SUDAN
GOVERNMENT
ADMIN AREA
GEBEL ELBA
WADI HALFA
SUDAN
TONY 1965

MAP 9

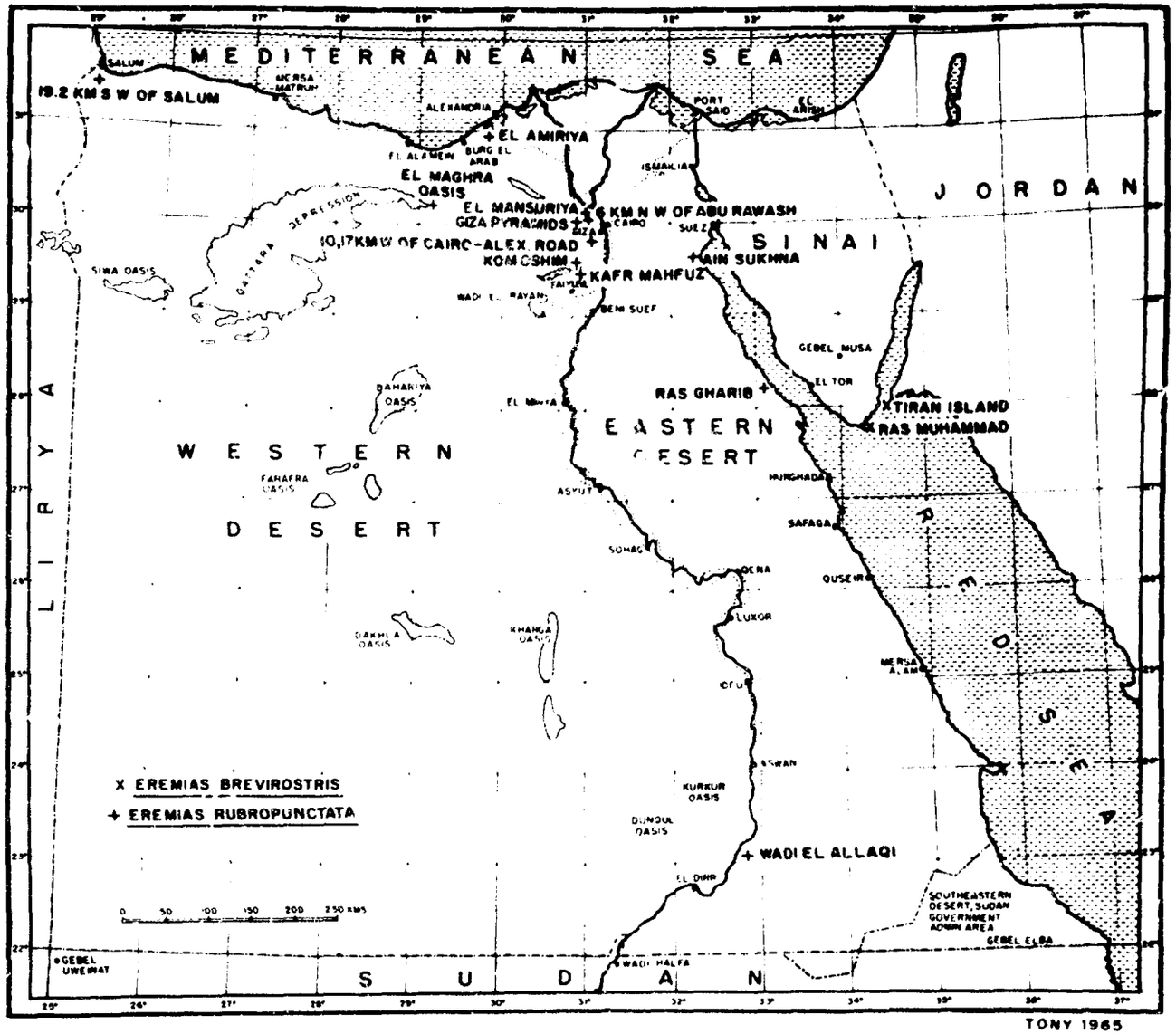

MEDITERRANEAN SEA
SIDI BARRANI
MERSA MATRUH
ALEXANDRIA
PORT SAID
EL ARISH
EL ALAMEIN
BURG EL ARAB
WADI NATROUN
CAIRO
GIZA
SUEZ
SINAI
JORDAN
WADI EL RAYAN
BENI SUEF
FEIRAN OASIS
WADI EL SHEIKH
BETWEEN WADI RABA & RADA
WADI EL ARBAEEN
ST. CATHERINE'S MONASTERY
BAHARIYA OASIS
EL MINYA
EASTERN DESERT
WESTERN DESERT
FARAFRA OASIS
ASYUT
DURUNKA
HURGHADA
SAFAGA
SOHAG
QENA
QUSEIR
FAMAKHIR MINE
LUXOR
DAKHLA OASIS
KHARGA OASIS
IDFU
MERSA ALAM
RED SEA
ASWAN
KURKUR OASIS
DUNGUL OASIS
WADI HAMMUR
EL DARB
WADI UMM KARAYIET
WADI AIDEB
DIB BARRARA
HALAIB
GEBEL ELBA
WADI HALFA
GEBEL UBEIDIAT
SUDAN
LIBYA
ACANTHODACTYLUS BOSKIANUS ASPER
TONY 1965


MEDITERRANEAN SEA
EL SHEIKH MUBARAK BALTIM
DAMIETTA
ROSETTA
KAFR EL BATTIKH
EL GAMIL BEACH
PORT SAID
EL AMIRIYA
ABU EL MATAMIR
BURG EL ARAB
EL BALLAH
SINAI
ISMALIA
EL ABBASSA
WADI NATROUN
EL BIRIGAT
ABU GHALIB
EL MARG
BIRQASH
MANSHIYET RADWAN
EL MANSURIYA
ABU RAWASH
KUBBA
AIN SHAMS
EASTERN
6KM W OF CAIRO
GIZA
CAIRO
EL AHMAR
CAIRO-SUEZ ROAD
GIZA PYRAMIDS
ABBASSIA
WADI ISEILI
SUEZ
DESERT
MAADI
WADI NAAM
WESTERN DESERT
M.T REHEINA
KOM O SHIM
WADI HOF
HELWAN
AIN SUKHNA
GULF
GEZEIRET EL QARN
WADI QISEIB
WADI DOUM
KAFR MAHFUZ
OF
SUEZ
WADI EL NIL
ACANTHODACTYLUS BOSKIANUS ASPER
30°
31°
32°
30°
31°
32°

TONY 1965


MEDITERRANEAN SEA
ROSETTA
DAMIETTA
ALEXANDRIA
KAFR EL BATTIKH
EL GAMIL BEACH
PORT SAID
SINAI
ABU EL MATAMIR
EL HAUWARIYA
BAHIG
BURG EL ARAB
179 KM M W CAIRO-ALEX ROAD
BETWEEN RABA & MAFIRADA
ST. CATHERINE'S MONASTERY
ISMAILIA
WADI NATRUN
EL BIRGAT
BIR VICTORIA
3.2 KM S W OF SALUM
SIDI BARRANI
MERSA MATRUH
ABU GHALIB
EL MANSURIYA
KOM BIRA
ABU RAWASH
EL ALAMEIN
10 KM W OF CAIRO-ALEX ROAD
GIZA PYRAMIDS
EASTERN DESERT
SUEZ
SIWA OASIS
AIN SHEFA
EL BAHNASA
KOM OSHIM
WADI HOF
HELWAN
GULF OF SUEZ
KAFR MAHFUZ
WADI HAIMUR
BIR HANSISROB
WADI MUWELLIH
WADI EL RAYAN
BENI SUEF
X ACANTHODACTYLUS P. PARDALIS
ACANTHODACTYLUS S. SCUTELLATUS
0 10 20 30 40 50 KMS
30°
31°
32°

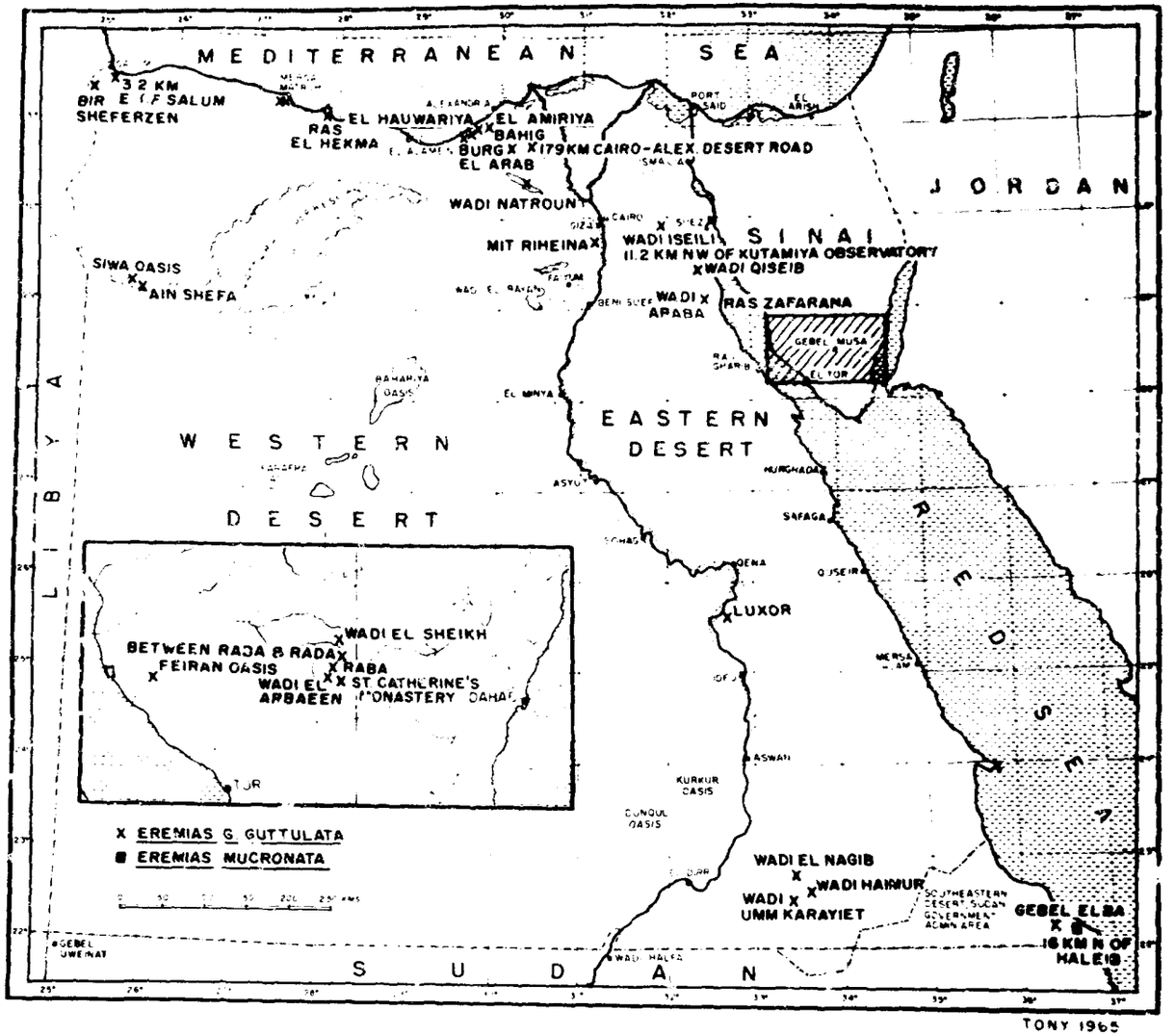
MAP 11

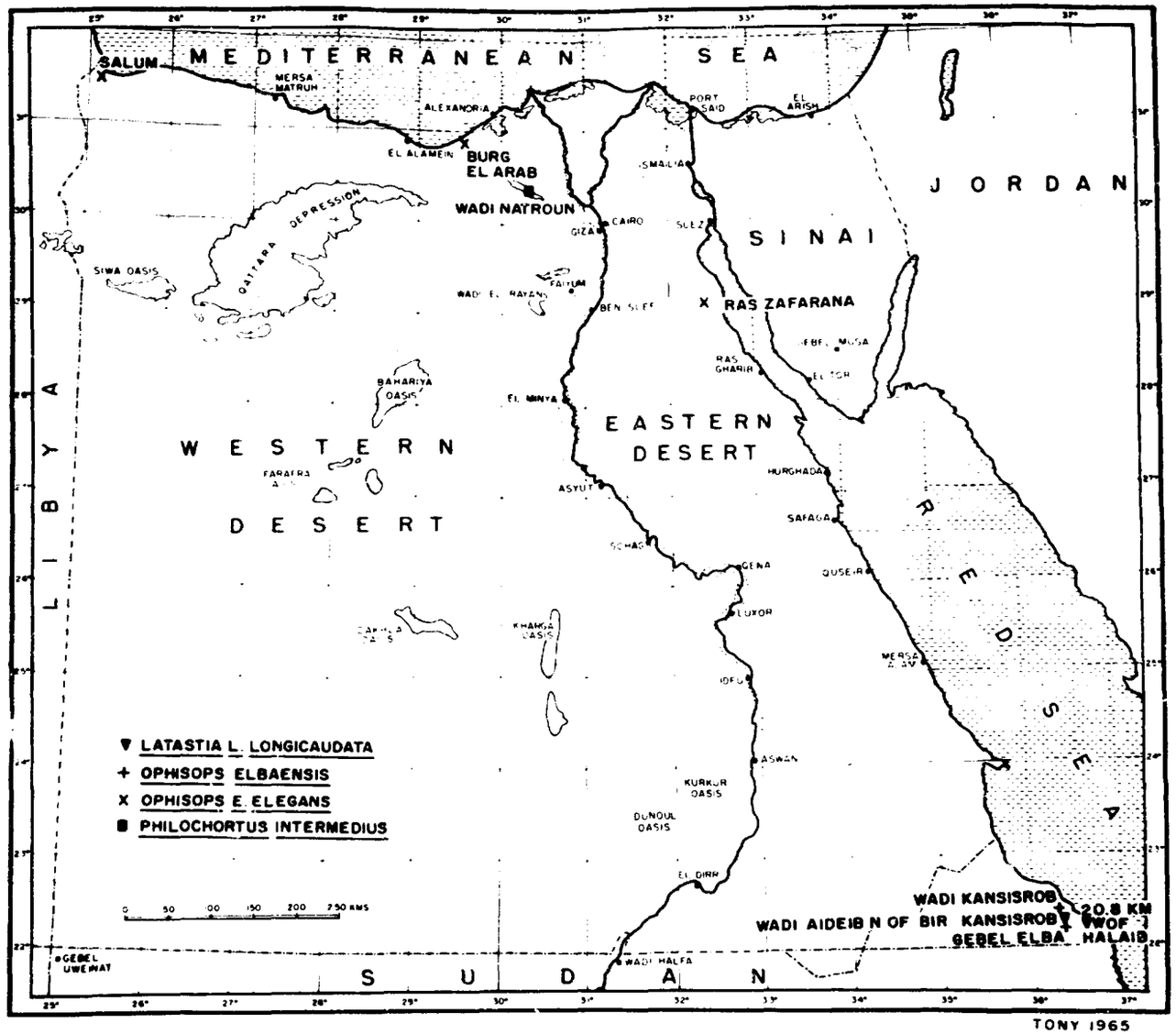


TONY 1965

MAP 12

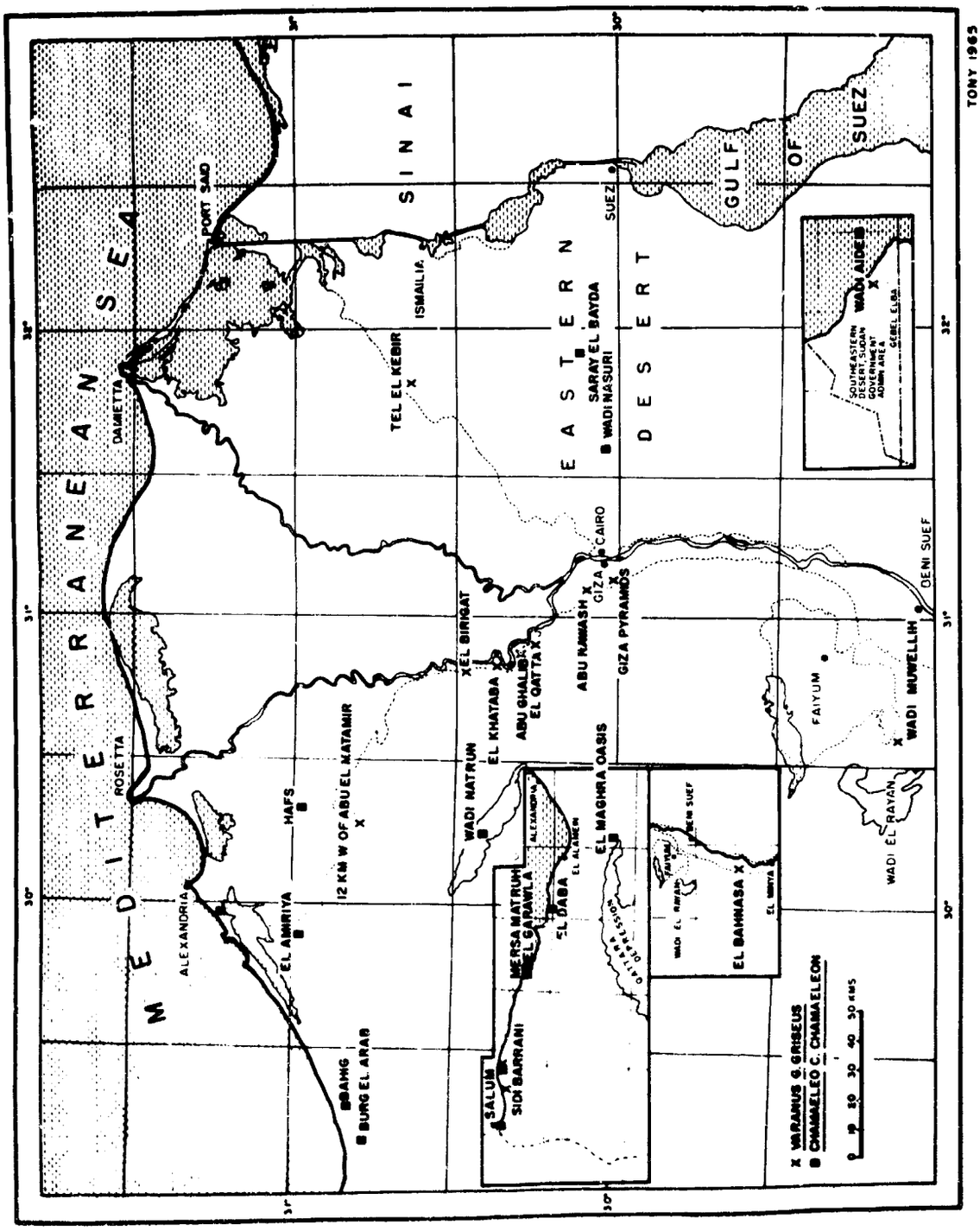
MAP 13


MEDITERRANEAN SEA
32 KM
BIR E L F SALUM
SHEFERZEN
RAS
EL HEKMA
EL HAUWARIYA
EL AMIRIYA
BAHIG
BURG X X179KM CAIRO-ALEX. DESERT ROAD
EL ARAB
WADI NATROUN
MIT RIHEINA
SIWA OASIS
AIN SHEFA
WADI ISEILI
11.2 KM NW OF KUTAMIYA OBSERVATORY
WADI QISEIB
WADI
ARABA
RAS ZAFARANA
GEBEL MUSA
EL TOR
JORDAN
SINAI
EASTERN
DESERT
WESTERN
DESERT
LIBYA
RED SEA
LUXOR
ASWAN
KURKUR
OASIS
DUNQUL
OASIS
WADI EL NAGIB
WADI HAMMUR
WADI
UMM KARAYIET
GEBEL ELBA
16 KM N OF
HALEIB
SUDAN
GEBEL
UWEINAT
WADI HALFA
BETWEEN RADA & RADA
FEIRAN OASIS
WADI EL
ARBAEEN
WADI EL SHEIKH
RABA
ST CATHERINE'S
MONASTERY
DAHAB
TUR
X EREMIAS G. GUTTULATA
EREMIAS MUCRONATA
TONY 1965



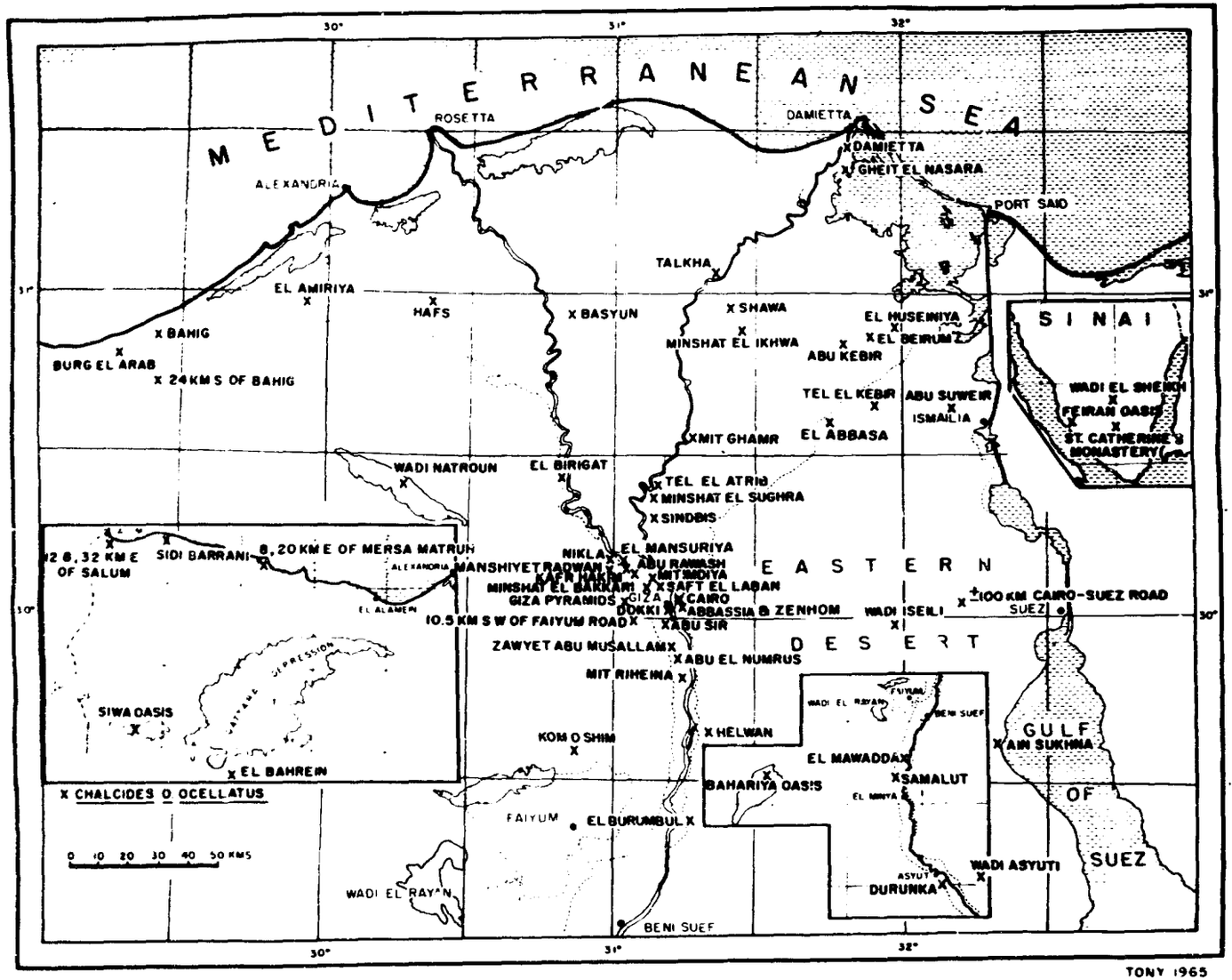
TONY 1965

MAP 14


MEDITERRANEAN SEA
SINAI
EASTERN DESERT
GULF OF SUEZ
PORT SAID
DAMIETTA
ROSETTA
ALEXANDRIA
EL AMRIYA
HAFS
12 KM W OF ABU EL MATAMIR
BURG EL ARAB
SALUM
SIDI BARRANI
MERSA MATRUH
EL ALAMEIN
EL DABA
WADI NATRUN
EL KHATABA
ABU GHALEB
EL QATTA
EL BIRGAT
TEL EL KEBIR
ISMAILIA
SUEZ
SARAY EL BAYDA
WADI NASURI
ABU RAWASH
GIZA
CAIRO
GIZA PYRAMIDS
OENI SUEF
FAIYUM
WADI MUWELLIH
WADI EL RAYAN
EL BAHRASA
EL MINYA
WADI ALDEB
SOUTHEASTERN DESERT, SUDAN GOVERNMENT ADMIN AREA
GEBEL ELBA
X VARANUS G. GRISEUS
■ CHAMAELEO C. CHAMAELEON
0 10 20 30 40 50 KMS
TONY 1965

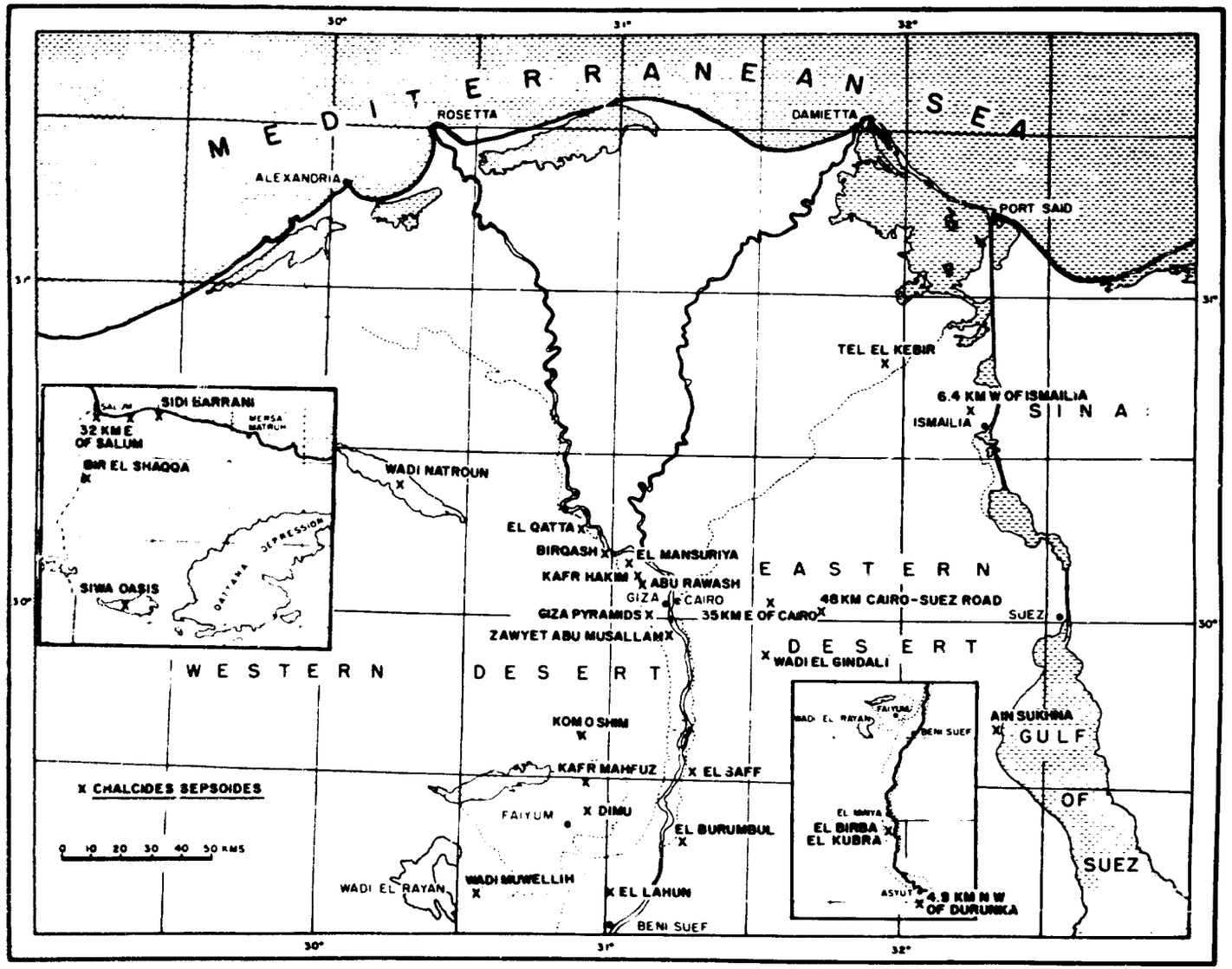
MAP 15

MAP 16



TONY 1965

MAP 17



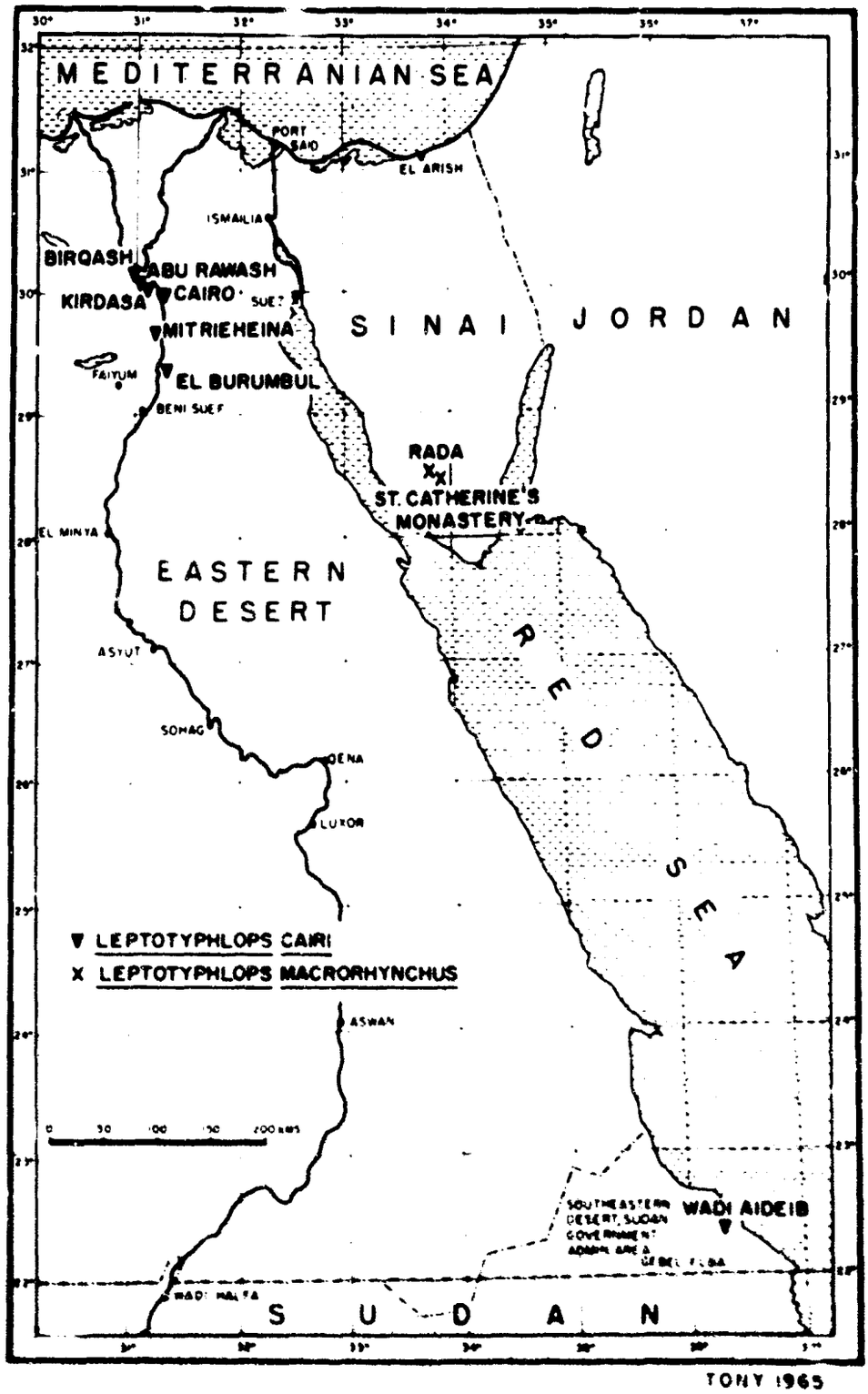
TONY 1965

MEDITERRANEAN SEA
SINAI
EASTERN DESERT
GULF OF SUEZ
PORT SAID
DAMIETTA
ROSETTA
ALEXANDRIA
EL AMRIYA
ABU EL MATAMIR
TEL EL KEBIR
ISMAILIA
SUEZ
GUWEISNA
EL KHATATBA
EL MANSURIYA
GIZA
CAIRO
ZAWIYET ABU MUSALLAM
BENI SUEF
FAYUM
MAHUM
WADI EL RAYAN
WADI MUWELLIH
EL ALAMEIN
RAS EL HEKMA
WADI NATROUN
MINYET SALAMANT
BENI ADI
TUNON
TONY 1965

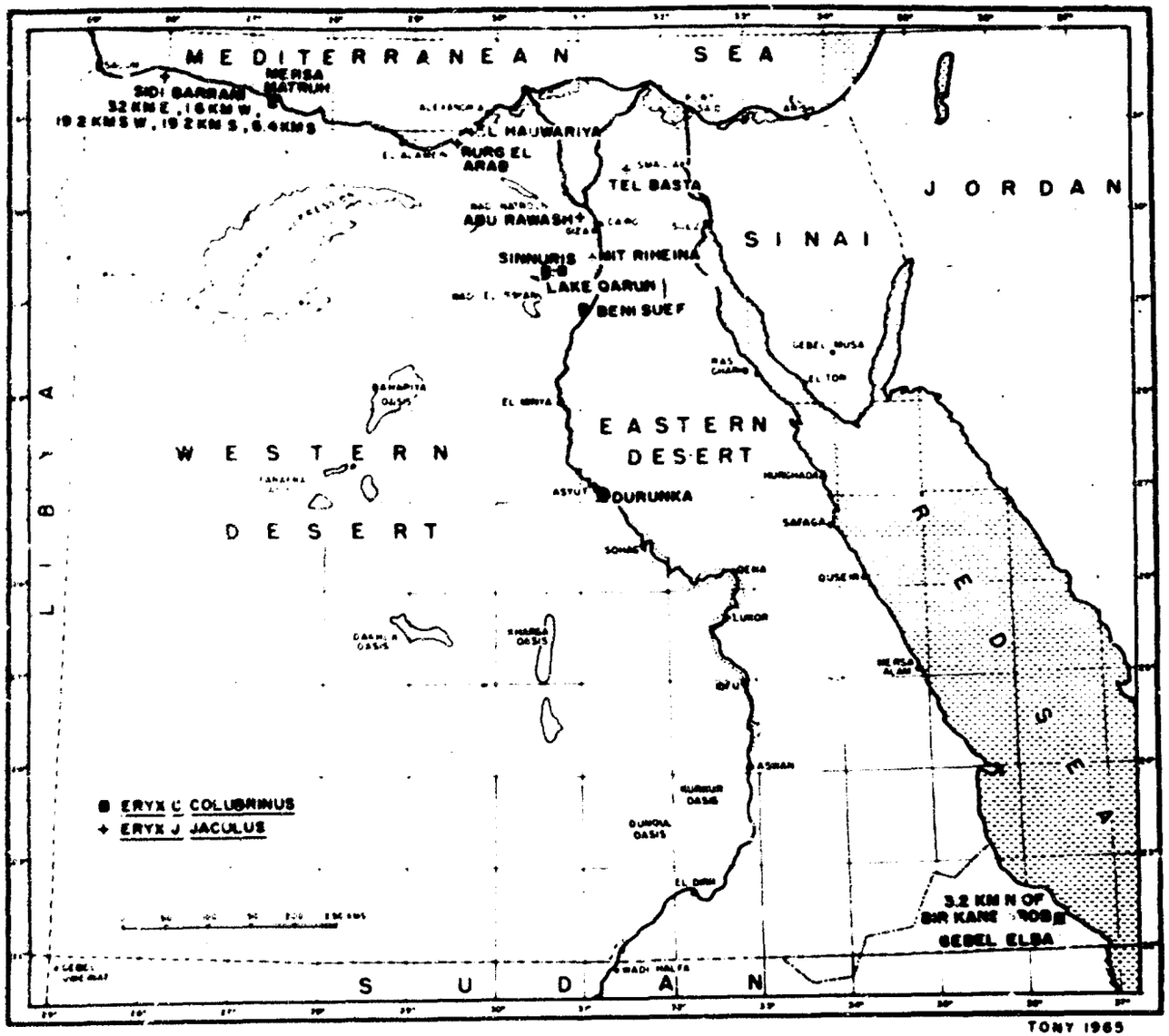
MAP 18

MEDITERRANEAN SEA
JORDAN
SINAI
RED SEA
EASTERN DESERT
WESTERN DESERT
SUDAN
LIBYA
ABU RUDEIS
ABU SUWEIR
EL BURULLUS
DURUNKA
WADI NASSIM
ASWAN
BALLANA
MABUYA Q. QUINQUETAENIATA
MABUYA VITTATA
TONY 1965

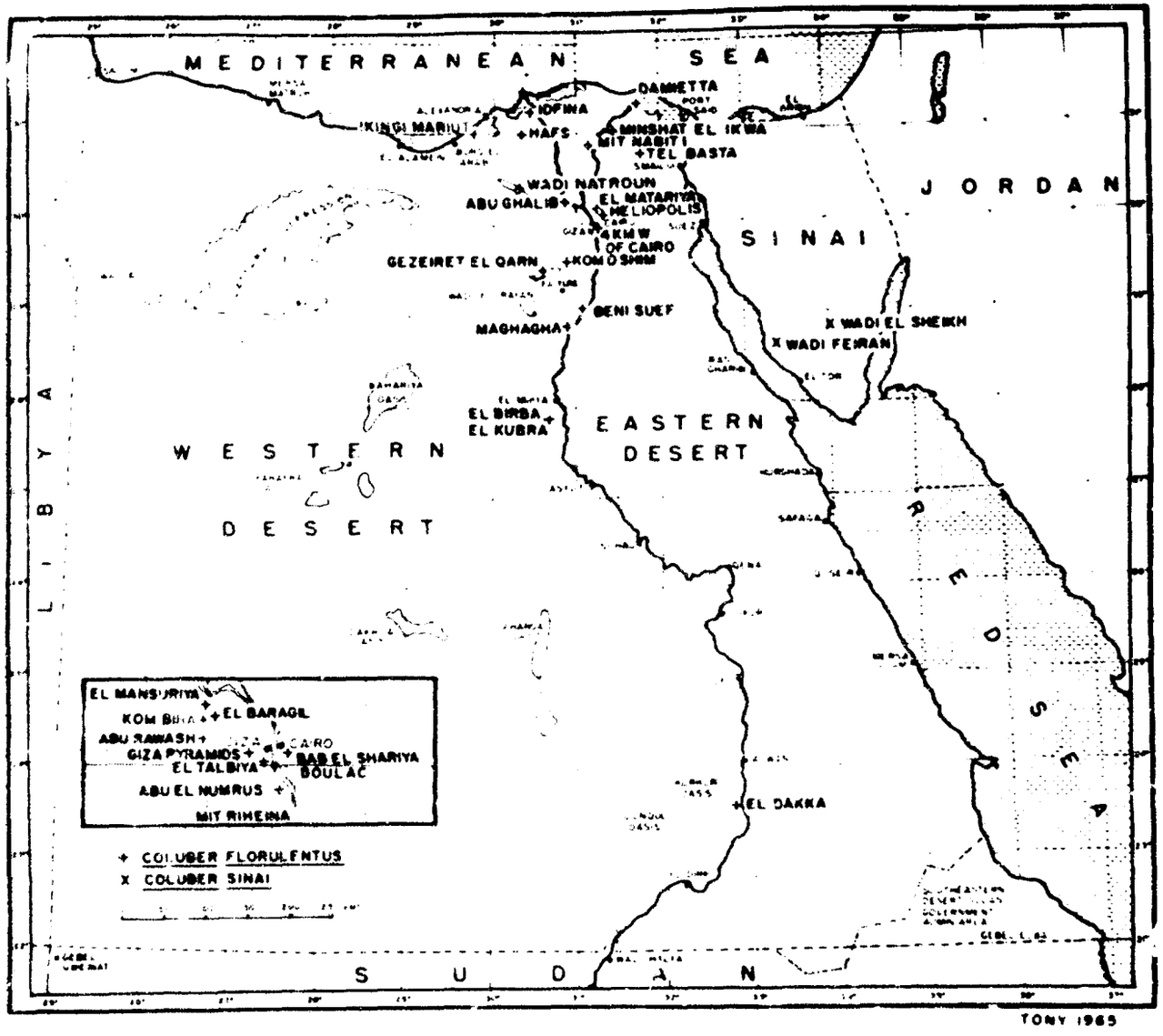
MAP 19


MEDITERRANIAN SEA
PORT SAID
EL ARISH
ISMAILIA
BIRQASH
ABU RAWASH
KIRDASA
CAIRO
SUEZ
MITRIEHEINA
SINAI
JORDAN
FAIYUM
EL BURUMBUL
BENI SUEF
RADA
ST. CATHERINE'S MONASTERY
EL MINYA
EASTERN DESERT
RED SEA
ASYUT
SOHAG
QENA
LUXOR
LEPTOTYPHLOPS CAIRI
LEPTOTYPHLOPS MACRORHYNCHUS
ASWAN
WADI AIDEIB
SUDAN
TONY 1965

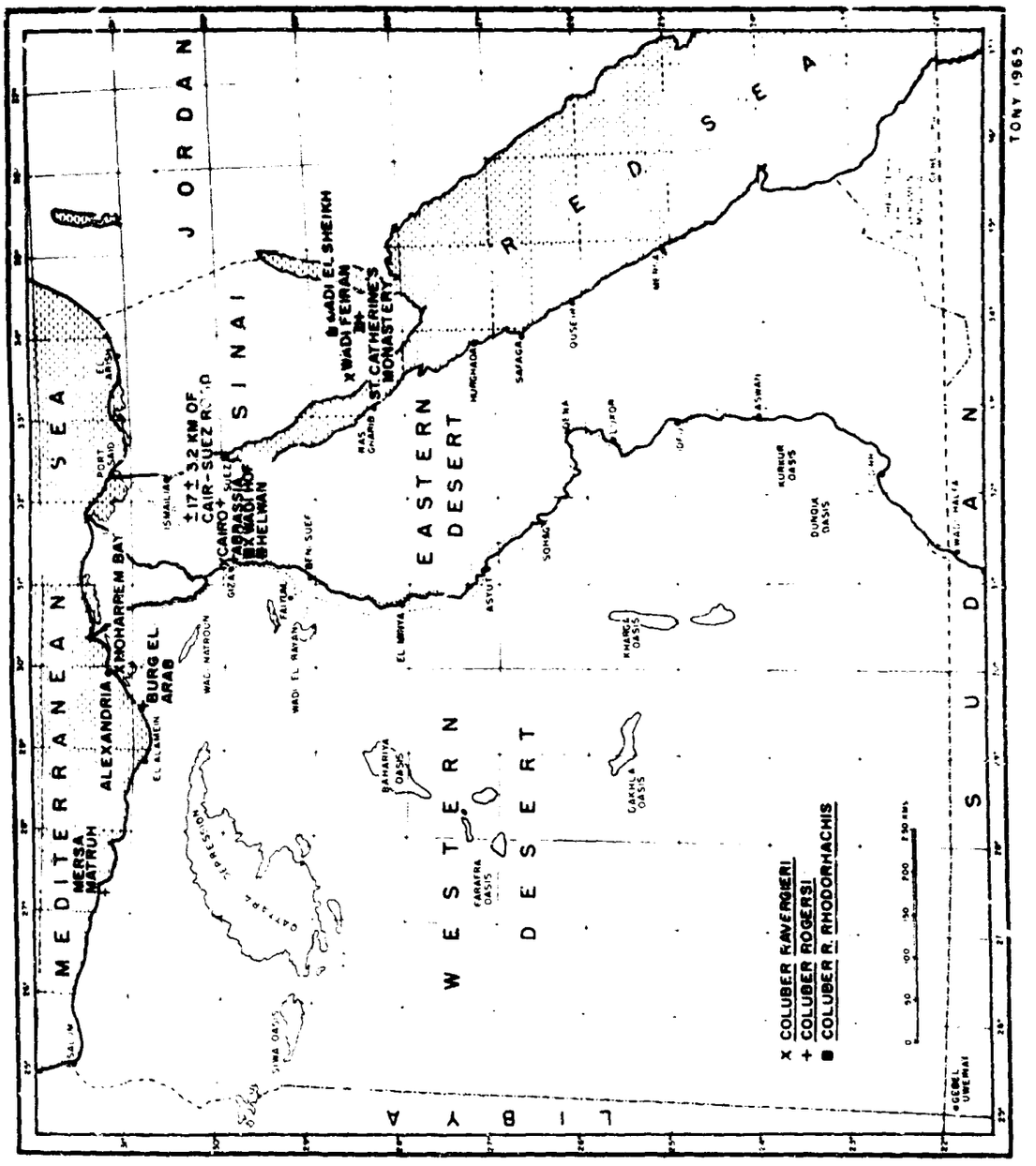
MAP 20


MEDITERRANEAN SEA
MERSA MATRUH
SIDI BARRANI
32 KMS E, 16 KMS W
19.2 KMS W, 19.2 KMS S, 6.4 KMS
EL HAMMAM
EL ALAMEIN
BURG EL ARAB
TEL BASTA
ABU RAWASH
SINNURIS
LAKE QARUN
BENI SUEF
EL MINYA
ASYUT
DURUNKA
SOHAG
QENA
LUXOR
ASWAN
KHARGA OASIS
DAKHLA OASIS
BAHARIYA OASIS
FARAFRA OASIS
KHARGA
SAFAGA
QUSEIR
MERSA ALAM
HURGHADA
EL TOR
RAS GHARIB
GEBEL MUSA
SINAI
JORDAN
WESTERN DESERT
EASTERN DESERT
LIBYA
RED SEA
SUDAN
ERYX C. COLUBRINUS
ERYX J. JACULUS
3.2 KM N OF BIR KANI
GEBEL ELBA
TONY 1965

MAP 21

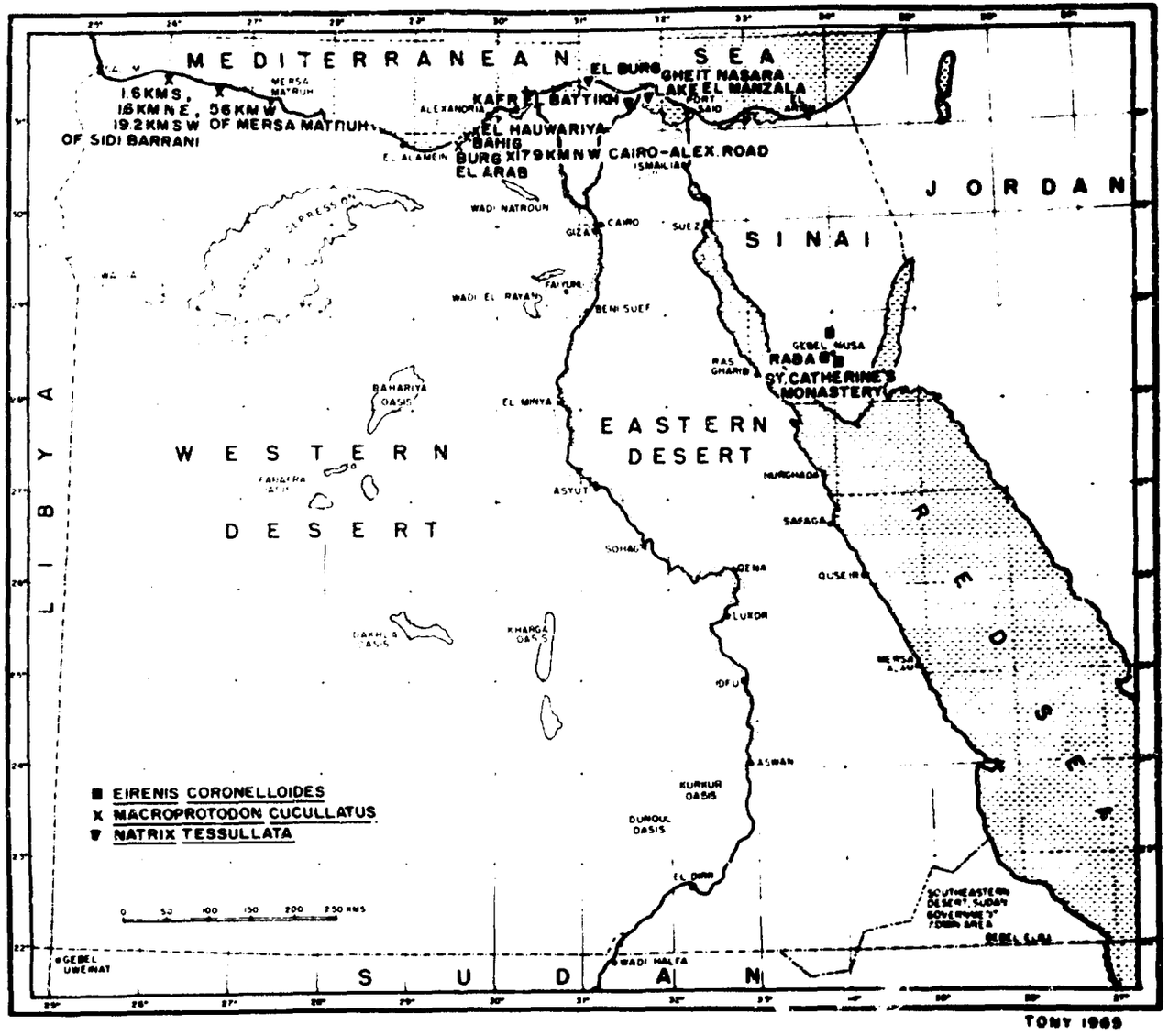

MEDITERRANEAN SEA
DAMIETTA
IDFINA
KINGI MARIUT
HAFS
MINSHAT EL IKWA
MIT NABITI
TEL BASTA
WADI NATROUN
ABU GHALIB
EL MATARIYA
HELIOPOLIS
JORDAN
SINAI
4KM W OF CAIRO
GEZEIRET EL QARN
KOM O SHIM
BENI SUEF
MAGHAGHA
X WADI EL SHEIKH
X WADI FEIRAN
LIBYA
EL BIRBA
EL KUBRA
EASTERN DESERT
WESTERN DESERT
RED SEA
EL MANSURIYA
KOM BIRA
EL BARAGIL
ABU RAWASH
CAIRO
GIZA PYRAMIDS
BAB EL SHARIYA
EL TALBIYA
BOULAC
ABU EL NUMRUS
MIT RIHEINA
EL DAKKA
+ COLUBER FLORULENTUS
X COLUBER SINAI
SUDAN
TONY 1965

MAP 22


MEDITERRANEAN SEA
RED SEA
JORDAN
SINAI
EASTERN DESERT
WESTERN DESERT
SUDAN
LIBYA
ALEXANDRIA
MOHARREM BAY
BURG EL ARAB
MERSA MATRUH
CAIRO
GIZA
PYRAMIDS
FARASSIA
EXMOUTH
SHELMAN
ISMAILIA
PORT SAID
SUEZ
±17± 3.2 KM OF CAIR-SUEZ R.R.
WADI FEIRAN
ST. CATHERINE'S MONASTERY
RAS GHARIB
HURGHADA
SAFAGA
QUSEIR
EDFU
ASYUT
SOHAG
ASWAN
KURKUR OASIS
DUNGUL OASIS
KHARGA OASIS
BAHARIYA OASIS
FARAFRA OASIS
DAKHLA OASIS
SIWA OASIS
WAD EL RAYAN
FAIUM
EL MINYA
WAD NATROUN
EL ALAMEIN
QATTARA DEPRESSION
GEBEL UWEINAT
WADI HALFA
TONY 1965
X COLUBER RAVERGIERI
+ COLUBER ROGERSI
■ COLUBER R. RHODORHACHIS
0 50 100 150 200 250 KMS

MAP 23

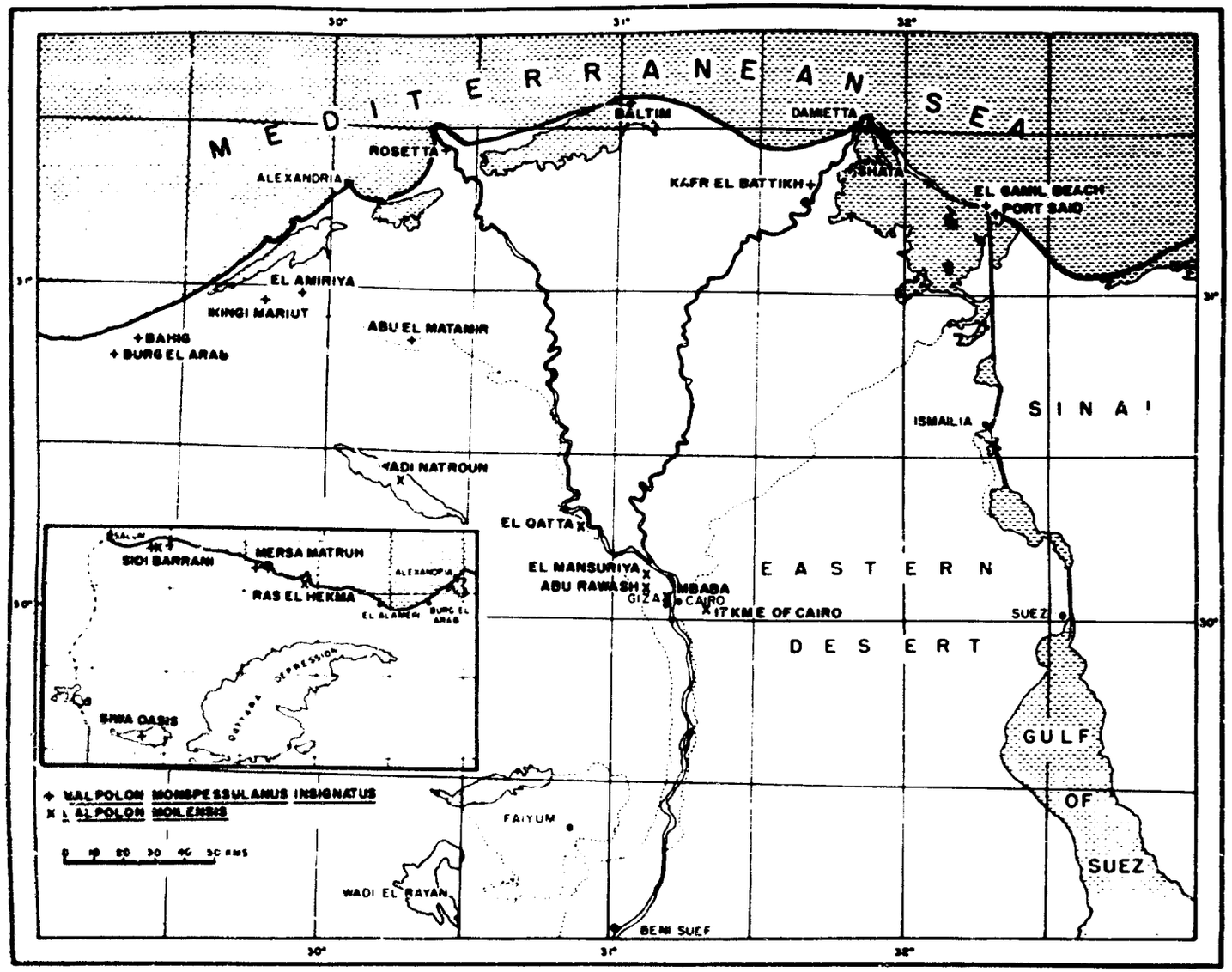
MAP 24


MEDITERRANEAN SEA
1.6KMS, 18KM N E, 19.2KMS W OF SIDI BARRANI
56KM W OF MERSA MATRUH
EL BURG
GHEIT NASARA
LAKE EL MANZALA
KAFR EL BATTIKH
EL HAUWARIYA
BAHIG
BURG EL ARAB
X 179 KM N W CAIRO-ALEX. ROAD
JORDAN
SINAI
WADI NATROUN
CAIRO
SUEZ
FAIYUM
BENI SUEF
GEBEL MUSA
RABA'A
ST. CATHERINE'S MONASTERY
RAS GHARIB
BAHARIYA OASIS
EL MINYA
EASTERN DESERT
WESTERN DESERT
ASYUT
SAFAGA
QENA
QUSEIR
LUXOR
RED SEA
KHARGA OASIS
DAKHLA OASIS
ASWAN
KURKUR OASIS
DURGUL OASIS
EL DABA
WADI HALFA
GEBEL UWEINAT
SUDAN
LIBYA
EIRENIS CORONELLOIDES
MACROPROTODON CUCULLATUS
NATRIX TESSULLATA
0 50 100 150 200 250 KMS
TONY 1969

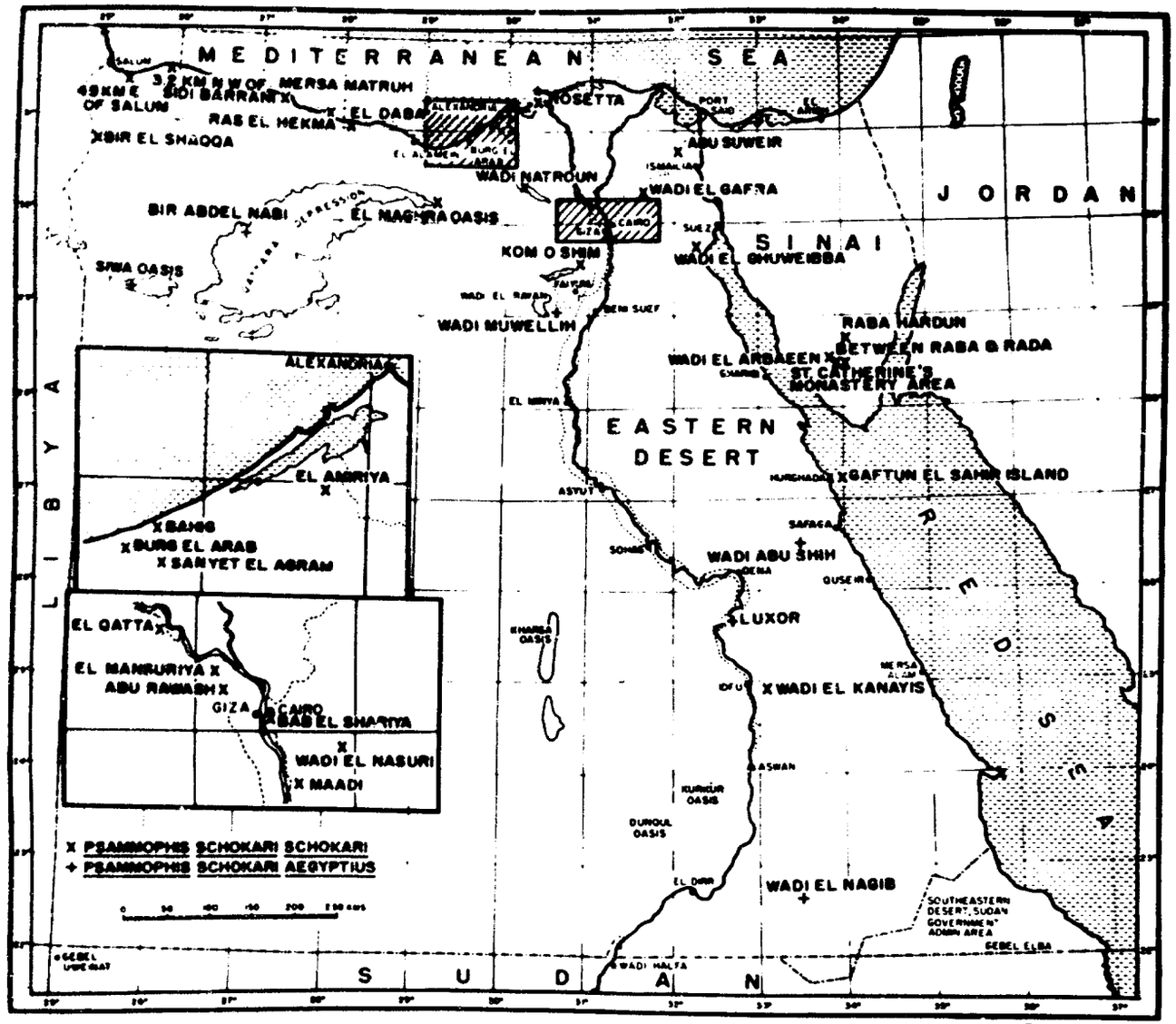
MEDITERRANEAN SEA
JORDAN
SINAI
RED SEA
EASTERN DESERT
WESTERN DESERT
SUDAN
LIBYA
EGYPT
EL QATTA
EL MANSHYET RADWAN
KOM OSHIM
FANUS
RABA
ST. CATHERINE'S MONASTERY
BIR KANSUSA
BURG EL ARAB
WADI NATROUN
BIR DAKAAR
64 KM NW OF ABU RAWASH
DEPRESSION
QATTARA
SIWA OASIS
BAHARIYA OASIS
FARAFRA OASIS
DAKHLA OASIS
KHARGA OASIS
DUNQUL OASIS
KURKUR OASIS
EL DIBA
WADI HALFA
GEBEL UWEINAT
LYTORHYNCHUS DIADEMA
TONY 1955

MAP 25

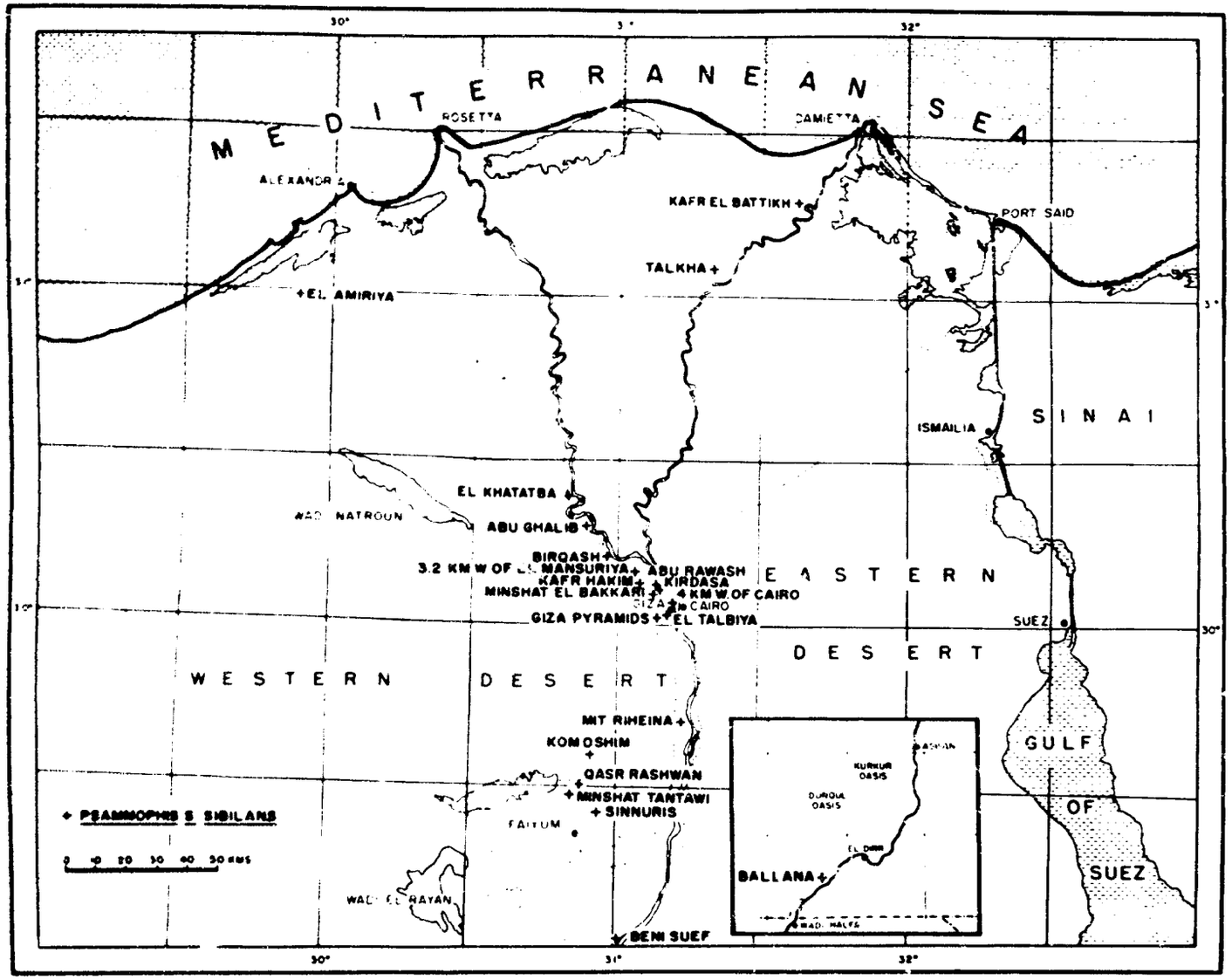
MAP 26


30°
31°
32°
MEDITERRANEAN SEA
BALTIM
DAMIETTA
ROSETTA
ALEXANDRIA
KAFR EL BATTIKH
ISHATA
EL GAMIL BEACH
PORT SAID
EL AMIRIYA
IKINGI MARIUT
ABU EL MATAMIR
BANIG
BURG EL ARAB
ISMAILIA
SINAI
WADI NATROUN
EL QATTA
EL MANSURIYA
ABU RAWASH
MBABA
GIZA
CAIRO
17 KM E OF CAIRO
SUEZ
EASTERN
DESERT
GULF
OF
SUEZ
FAIYUM
WADI EL RAYAN
BENI SUEF
SIDI BARRANI
MERSA MATRUH
RAS EL HEKMA
EL ALAMEIN
BURG EL ARAB
SIWA OASIS
QATTARA DEPRESSION
VAL POLON MONSPESSULANUS INSIGNATUS
VAL AL POLON MOILENSIS
0 10 20 30 40 50 KMS
TONY 1965

MAP 27


MEDITERRANEAN SEA
3.2 KM N W OF MERSA MATRUH
49 KM E OF SALUM
SIDI BARRANI
EL DABA
RAS EL HEKMA
BIR EL SHAQQA
ROSETTA
PORT SAID
ABU SUWEIR
WADI NATROUN
WADI EL GAFRA
JORDAN
BIR ABDEL NABI
EL NAGHRA OASIS
SIWA OASIS
KOM O SHIM
SUEZ
SINAI
WADI EL GHUWEIBBA
WADI MUWELLIH
BENI SUEF
RABA HARDUN
BETWEEN RABA & RADA
WADI EL ARBAEEN
ST. CATHERINE'S MONASTERY AREA
EL MINYA
EASTERN DESERT
GAFTUN EL SAHIR ISLAND
ASYUT
SAFAGA
SOHAG
WADI ABU SHIH
QUSEIR
LUXOR
KHARGA OASIS
WADI EL KANAYIS
ASWAN
KURKUR OASIS
DUNGUL OASIS
WADI EL NAGIB
SOUTHEASTERN DESERT, SUDAN GOVERNMENT ADMIN AREA
GEBEL ELBA
WADI HALFA
SUDAN
LIBYA
RED SEA
ALEXANDRIA
EL AMRIYA
SAMID
BURG EL ARAB
SANYET EL AGRAM
EL QATTA
EL MAHRURIYA
ABU RAMMASH
GIZA
CAIRO
BAB EL SHARIYA
WADI EL NASURI
MAADI
PSAMMOPHIS SCHOKARI SCHOKARI
PSAMMOPHIS SCHOKARI AEGYPTIUS
TONY 1965

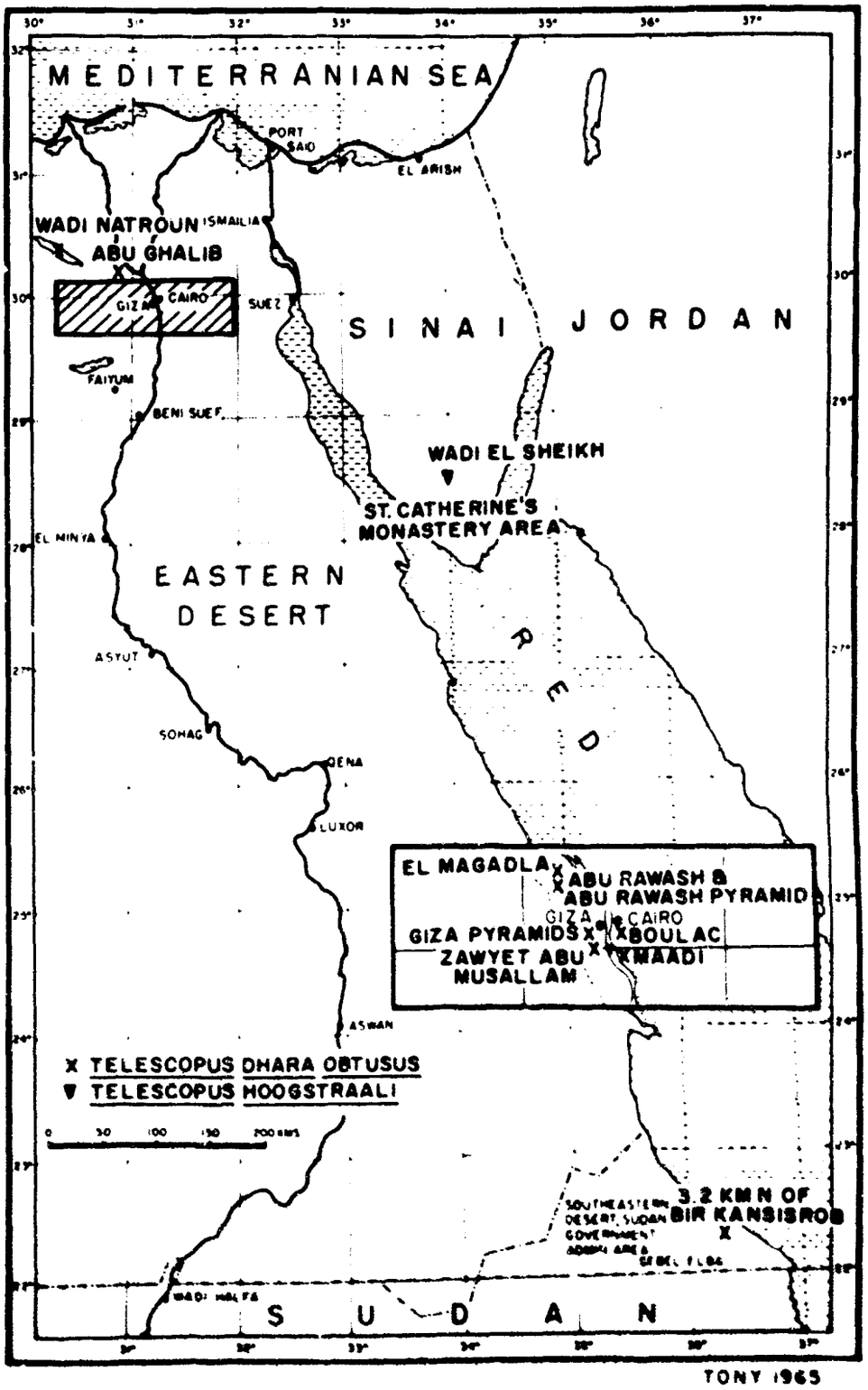
MAP 28



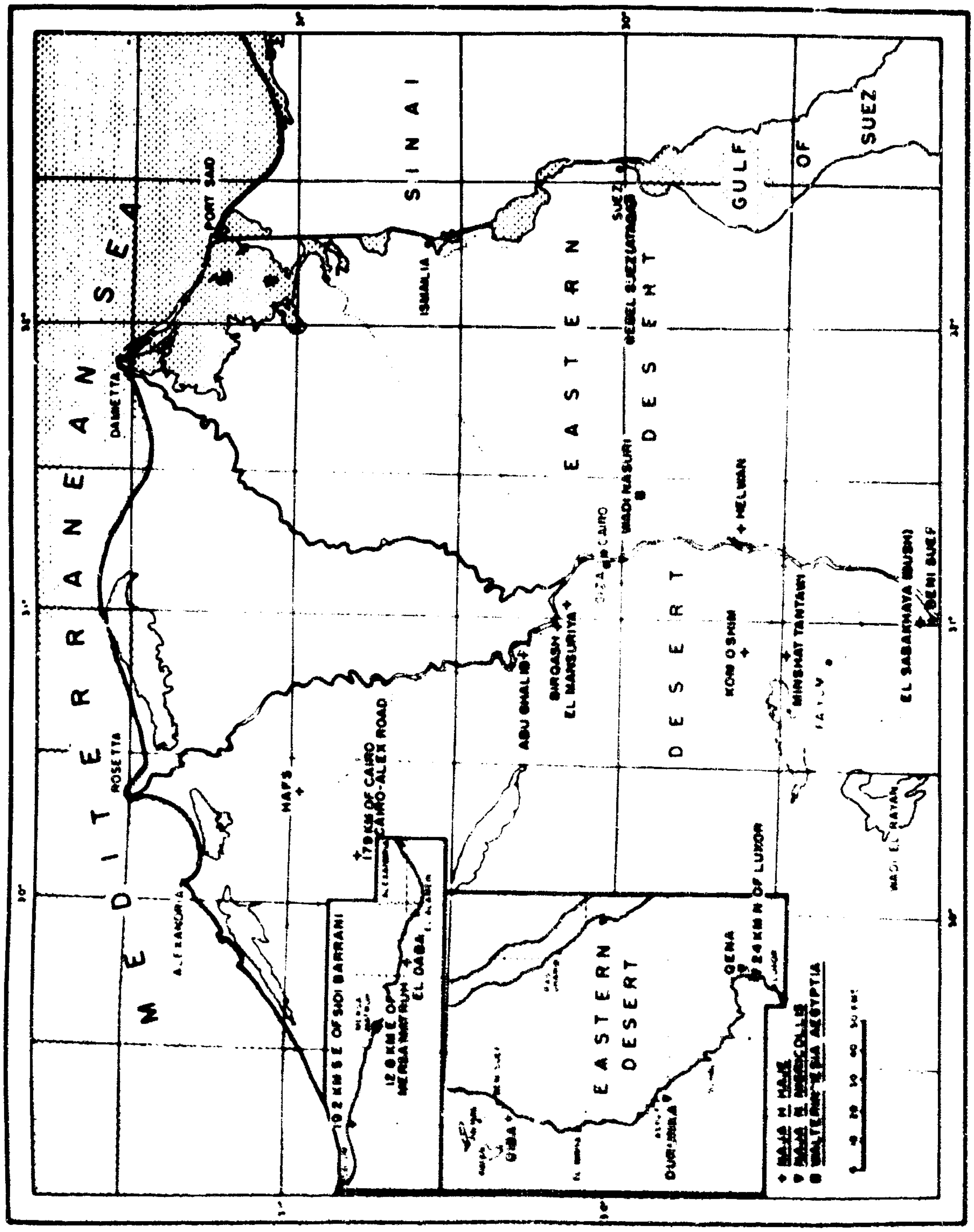
TONY 1965

MEDITERRANEAN SEA
SINAI
EASTERN DESERT
DESERT
GULF OF SUEZ
PORT SAID
DAMIETTA
ROSETTA
ALEXANDRIA
EL ARIYA
SARYET EL AGRAM
BURG EL ARAB
MAFS
WADI NATROUN
QUWEISNA
TEL BASTA
TEL EL KEBIR
6.4 KM W OF ISMAILIA
ISMAILIA
FEIRAN OASIS
GEBEL MUSA
EL TOR
RAS GARIB
SUEZ
WADI ISEILI
ABU RAWASH
MANSHAT EL BAKKARI
GIZA
CAIRO
29 KM E OF CAIRO-SUEZ ROAD
GIZA PYRAMIDS
ABU SIR
KOM O SHIM
FAIYUM
WADI EL RAYAN
BENI SUEF
3.2 KM N OF BIR KANISIROS
MERSA MATRUH
SIWA OASIS
SPALEROSOPHIS DIADEMA CLIFFORDI
0 10 20 30 40 50 KMS
TONY 1965

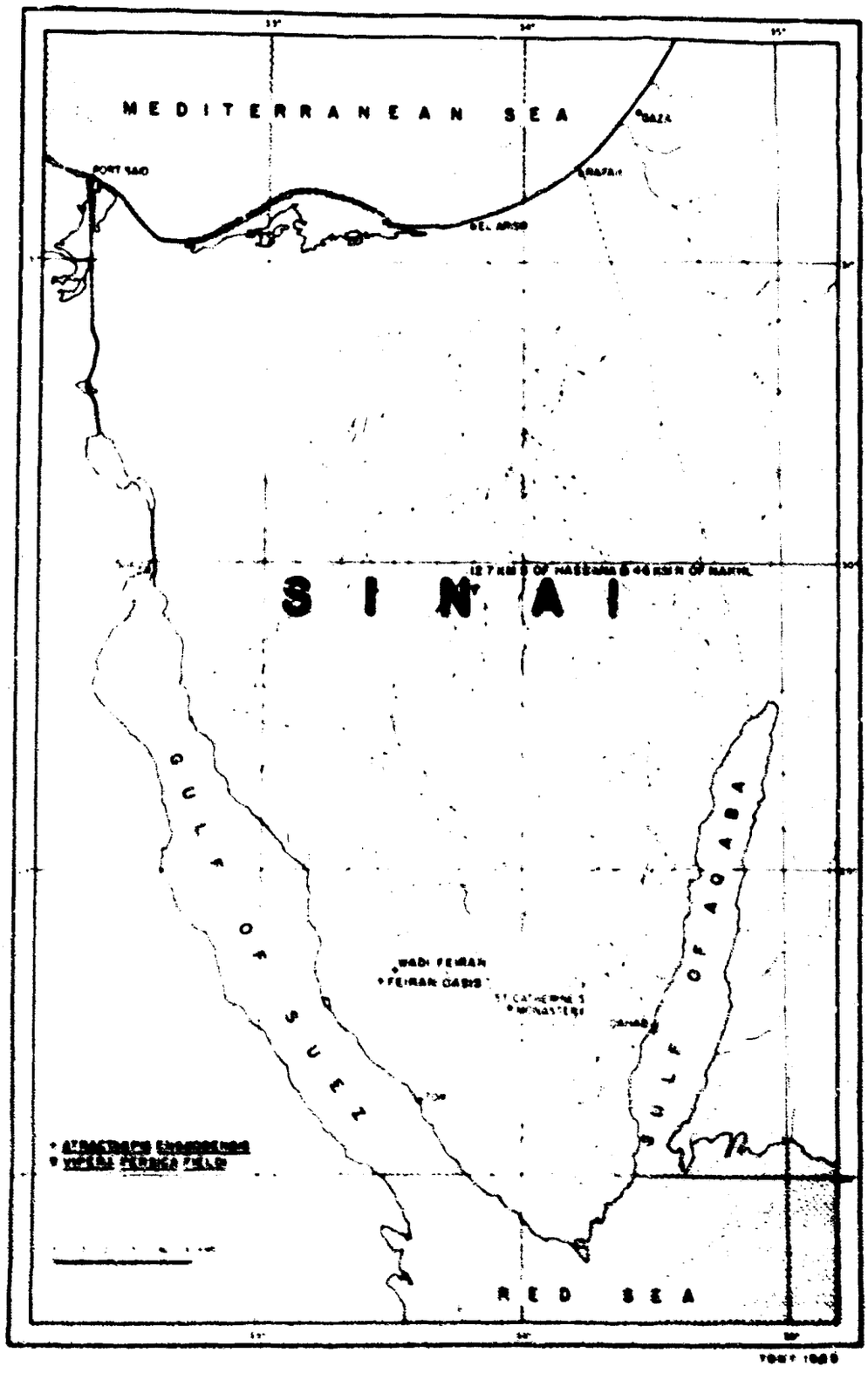
MAP 29


MEDITERRANIAN SEA
PORT SAID
EL ARISH
WADI NATROUN
ISMAILIA
ABU GHALIB
GIZA
CAIRO
SUEZ
SINAI
JORDAN
FAIYUM
BENI SUEF
WADI EL SHEIKH
ST. CATHERINE'S MONASTERY AREA
EL MINYA
EASTERN DESERT
RED
ASYUT
SOHAG
QENA
LUXOR
ASWAN
EL MAGADLA
ABU RAWASH &
ABU RAWASH PYRAMID
GIZA
CAIRO
GIZA PYRAMIDS
BOULAC
ZAWYET ABU MUSALLAM
MAADI
X TELESCOPUS DHARA OBTUSUS
TELESCOPUS HOOGSTRAALI
0 50 100 150 200 KMS
3.2 KM N OF BIR KANSISROB
SOUTHEASTERN DESERT, SUDAN GOVERNMENT ADMIN AREA
WADI HALFA
S U D A N
TONY 1965

MAP 30


M E D I T E R R A N E A N S E A
S I N A I
E A S T E R N D E S E R T
D E S E R T
GULF OF SUEZ
PORT SAID
DAMIETTA
ROSETTA
ISMAILIA
SUEZ
CAIRO
HELWAN
BENI SUEF
ABU GHALIB
KOM OSHIM
EASTERN DESERT
QENA
LUXOR
TONY 1965

MAP 31


MEDITERRANEAN SEA
GAZA
PORT SAID
RAFAH
EL ARISH
SINAI
WADI FEIRAN
FEIRAN OASIS
ST CATHERINE'S MONASTERY
SUEZ
GULF OF AQABA
RED SEA

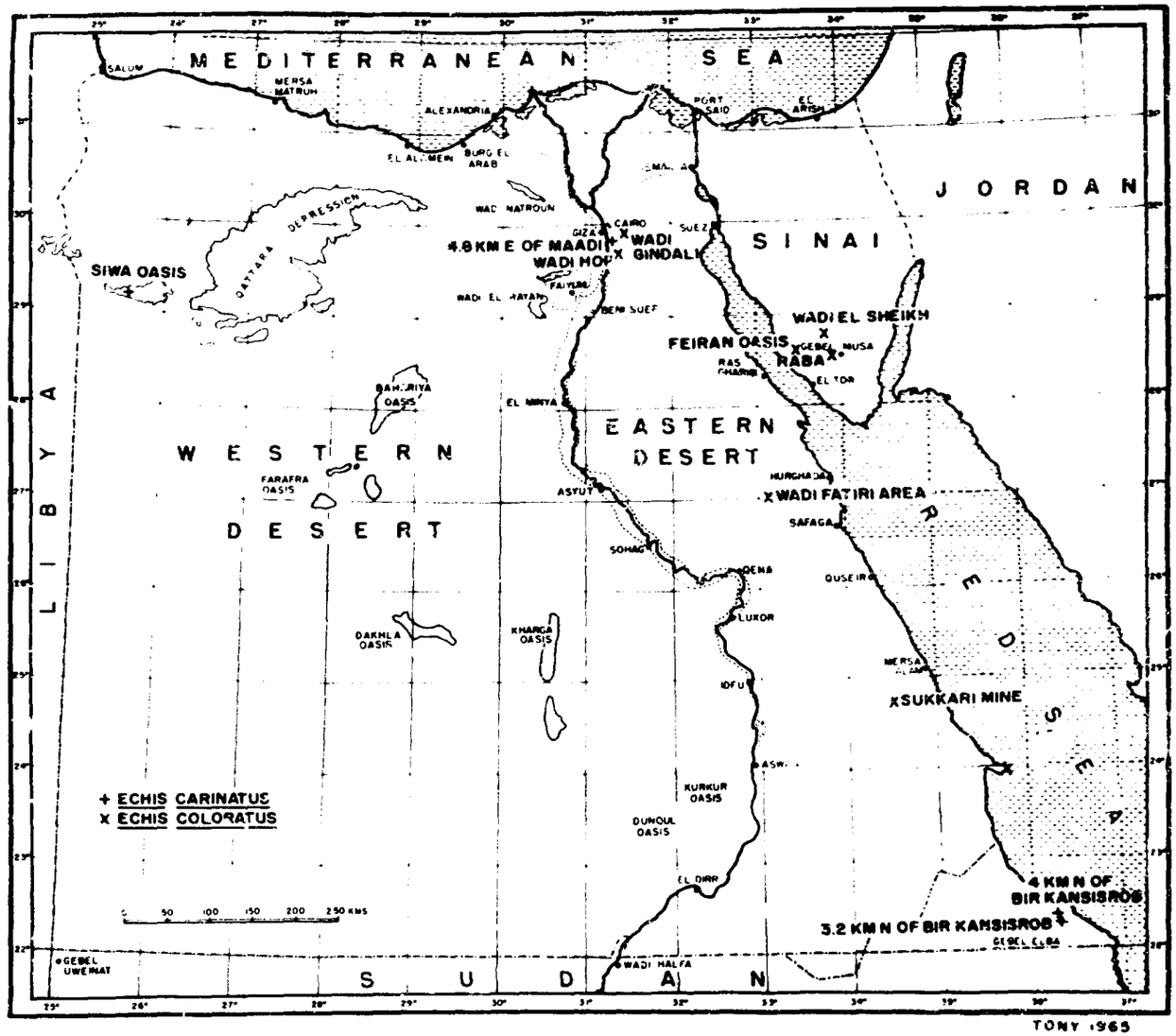
MAP 32

JORDAN
SINAI
MEDITERRANEAN SEA
EASTERN DESERT
WESTERN DESERT
SUDAN
LIBYA
RED SEA
TONY 1985

MAP 33

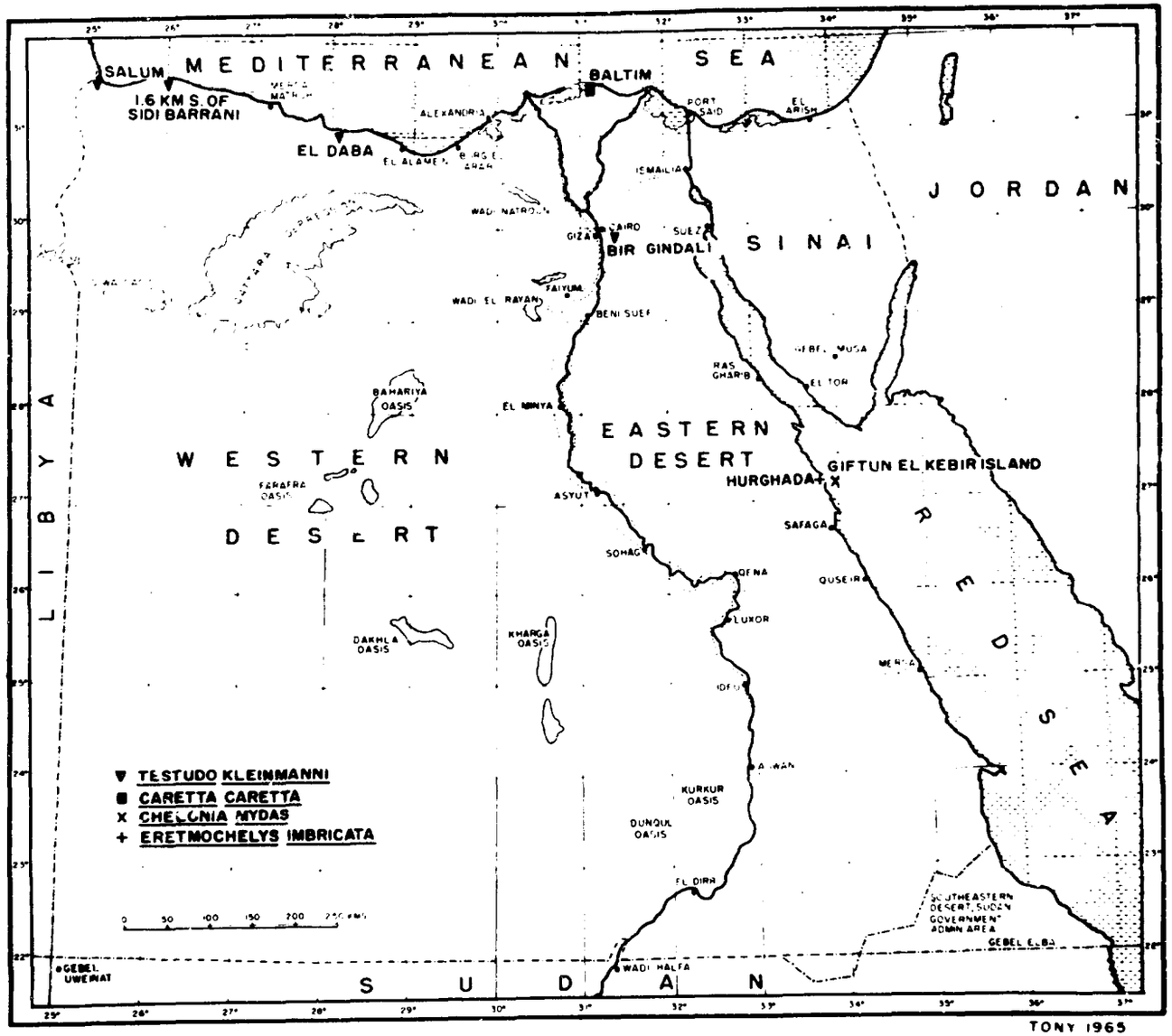
MEDITERRANEAN SEA
SINAI
GULF OF SUEZ
EASTERN DESERT
WESTERN DESERT
PORT SAID
ISMAILIA
SUEZ
DAMIETTA
ROSETTA
EL AMRIYA
WADI NATROUN
EL KHATATBA
ABU GHALEB
EL QATTAR
EL MANSURIYAH
ABU RAWASH
CAIRO
GIZEH
PYRAMIDS OF CAIRO
BENI YUSEF
ZAWYET ABU MUSALLAM
WADI NASURI
WADI GINDALI
WADI ISEILI
WADI DIGLA
WADI HOF
WADI GARAWI
KOM OSHIM
WADI NAANG
WADI EL BIR
WADI DOUMI
WADI GISEH
ABU DARAG LIGHT HOUSE
WADI ARABA
BIR ZAFARANA
WADI RUWELLIM
33A.
CERASTES CERASTES
CERASTES VIPERA
TONY 1965

MAP 33A

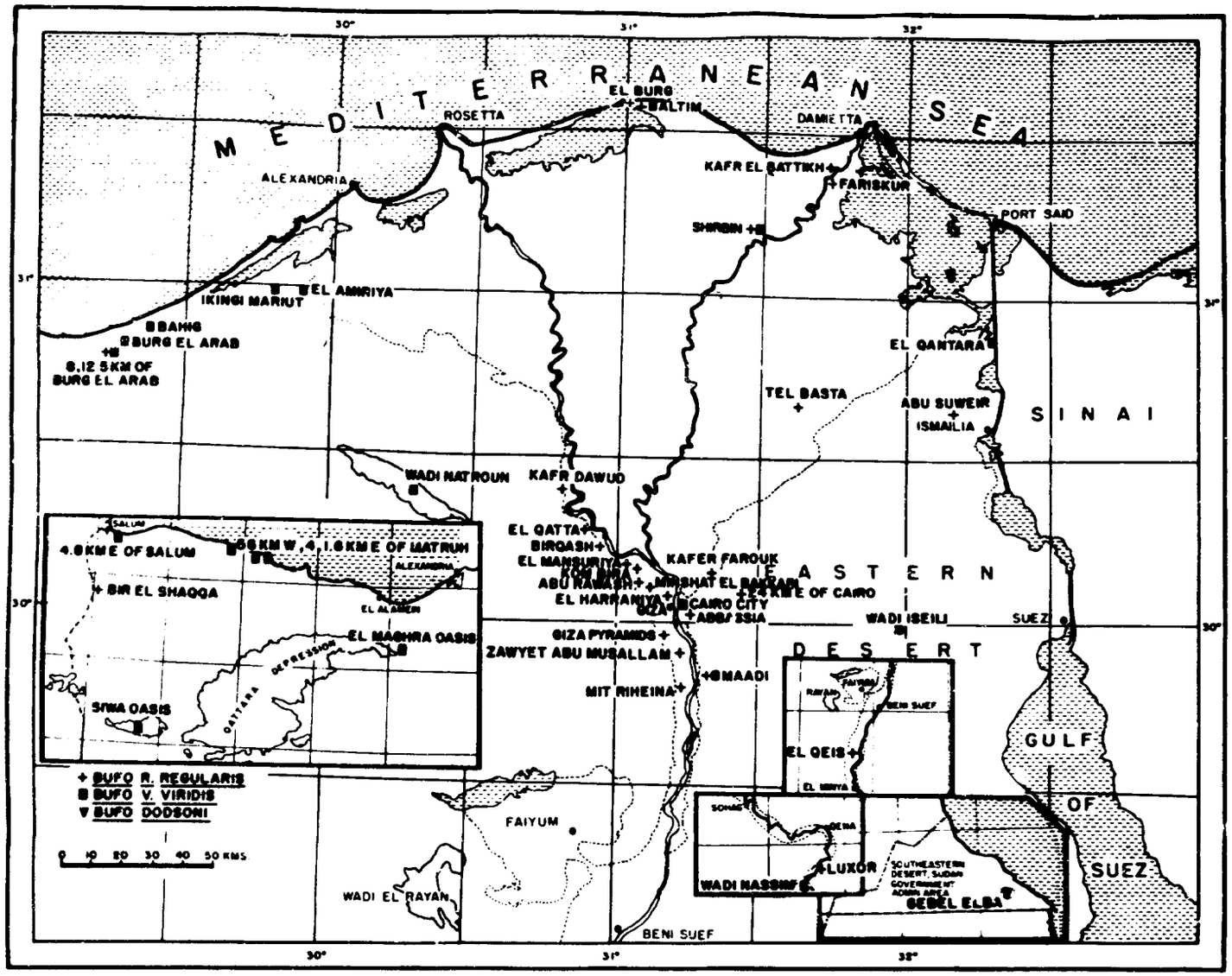

MEDITERRANEAN SEA
SALUM
MERSA MATRUH
ALEXANDRIA
EL ALAMEIN
BURG EL ARAB
PORT SAID
EL ARISH
JORDAN
WAD NATROUN
CAIRO
GIZA
SUEZ
4.8 KM E OF MAADI
WADI HOF
WADI GINDALI
SINAI
SIWA OASIS
QATTARA DEPRESSION
FAIYUM
WADI EL RAYAN
BENI SUEF
WADI EL SHEIKH
FEIRAN OASIS
GEBEL MUSA
RABA
RAS GHARIB
EL TOR
BAHARIYA OASIS
EL MINYA
EASTERN DESERT
WESTERN DESERT
LIBYA
FARAFRA OASIS
ASYUT
HURGHADA
WADI FATIRI AREA
SAFAGA
SOHAG
QENA
QUSEIR
LUXOR
DAKHLA OASIS
KHARGA OASIS
IDFU
MERSA ALAM
SUKKARI MINE
RED SEA
ASWAN
KURKUR OASIS
DUNGUL OASIS
EL DIBB
4 KM N OF BIR KANSISROS
3.2 KM N OF BIR KANSISROS
GEBEL ELBA
GEBEL UWEINAT
WADI HALFA
SUDAN
+ ECHIS CARINATUS
x ECHIS COLORATUS
0 50 100 150 200 250 KMS
TONY 1965

MAP 34

MAP 35


MEDITERRANEAN SEA
SALUM
1.6 KM S. OF SIDI BARRANI
EL DABA
ALEXANDRIA
BALTIM
PORT SAID
EL ARISH
JORDAN
SINAI
BIR GINDALI
CAIRO
SUEZ
GIZA
ISMAILIA
WADI NATRUN
FAIYUM
WADI EL RAYAN
BENI SUEF
GEBEL MUSA
EL TOR
RAS GHARIB
BAHARIYA OASIS
EL MINYA
EASTERN DESERT
GIFTUN EL KEBIR ISLAND
HURGHADA
WESTERN DESERT
FARAFRA OASIS
ASYUT
SAFAGA
SOHAG
QENA
QUSEIR
LUXOR
RED SEA
DAKHLA OASIS
KHARGA OASIS
KURKUR OASIS
DUNQUL OASIS
EL DIBA
SOUTHEASTERN DESERT, SUDAN GOVERNMENT ADMIN AREA
GEBEL ELBA
WADI HALFA
GEBEL UWEINAT
LIBYA
SUDAN
TESTUDO KLEINMANNI
CARETTA CARETTA
CHELONIA MYDAS
ERETMOCHELYS IMBRICATA
0 50 100 150 200
TONY 1965

MAP 36



TONY 1965

MEDITERRANEAN SEA
SINAI
GULF OF SUEZ
EASTERN DESERT
WESTERN DESERT
PORT SAID
ISMAILIA
SUEZ
DAMIETTA
FARISKUR
ROSETTA
ALEXANDRIA
EL MANSURIYA
TANASH
SAFT EL LABAN
KAFR HAKIM
CAIRO
ABBASSIA
WADI NATROUN
+ RANA M MASCARENIENSIS
▼ RANA RIDIBUNDA
TONY 965

MAP 37

UNCLASSIFIED
SECURITY CLASSIFICATION

DOCUMENT CONTROL DATA R & D
(Security classification of title, body of abstract and indexing annotation must be entered when the overall report is classified)

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4. DESCRIPTIVE NOTES (*Type of report and inclusive dates*)
Technical Report.

5. AUTHOR (S) (*First name, middle initial, last name*)

Hymen Marx

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13. ABSTRACT

This checklist is based primarily on extensive collections made by the United States Naval Medical Research Unit No.3 (NAMRU-3) in Egypt. Forms here listed are those that are known or expected to occur in Egypt (including Sinai), and those that have been reported from Egypt without further verification. The systematic lists contain original citations, references to major faunal works, and the most recent reviews of each particular group. NAMRU-3 collecting localities are given for each species. From the 3,424 specimens obtained, adequate distributional data are now available for most forms in Egypt. Maps showing collecting localities for each species are also presented for use in future sympatric and ecological studies.

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KEY WORDS	LINK A		LINK B		LINK C	
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